California Regional Water Quality Control Board

Los Angeles Region

Recipient of the 2001 *Environmental Leadership Award* from Keep California Beautiful

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March 18, 2005

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RESPONSE TO COMMENTS ON 09/21/04 TENTATIVE WASTE DISCHARGE REQUIREMENTS (WDR) AND NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT RECEIVED ON OCTOBER 21, 2004 – City of Los Angeles, Hyperion Treatment Plant (NPDES Permit No. CA0109991, CI-1492)

Dear Ms. Robinson:

Thank you for your comments to the above-referenced WDR and NPDES permit. The following are the U.S. Environmental Protection Agency, Region IX (USEPA) and Los Angeles Regional Water Quality Control Board (Regional Board) responses to your comments provided on October 21, 2004:

Reasonable Potential Analysis (RPA)

1. **Comment:** *The proposed Reasonable Potential Analysis (RPA) based on 1999 to 2004 effluent data process is overly conservative and statistically invalid because it bases a finding of RP on maximum detection limits in the case of 100% non-detects:*

   i. This approach results in RP when there is no evidence that the constituent of concern is present in the effluent over a 5-year period at any concentration.
   ii. This approach is contrary to the RPA process developed by the SWRCB Division of Water Quality for proposed amendment into the California Ocean Plan (COP). In the case of 100% non-detected data, the proposed COP RPA process simply calls for either chronic Whole Effluent Toxicity (WET) testing or additional monitoring of the constituent of concern – not a finding of RP and effluent limits. The proposed HTP permit includes chronic toxicity testing, which will monitor for toxicity, even for 100% non-detected constituents.
   iii. Using the highest Method Detection Limit (MDL) as a presumed measure of effluent quality is overly influenced by a single high MDL. This method fails to adequately consider information available in the complete data set and penalizes the Bureau for <u>any</u> past high-MDL analyses, even if improved methods indicate a low probability that the Maximum Effluent Concentration (MEC) is equal to or greater than the maximum MDL. This selective use of the available data will also result in unreasonable and statistically unsupportable conclusions in cases where all data are below detection if the data set

includes even one high-MDL determination. The RPA procedure is already highly conservative in its estimation of a discharger's risk of causing or contributing to an exceedance of water quality objectives. This selective use of effluent quality data is statistically invalid and introduces a new and unnecessary level of conservative bias into the RPA process.

Based on the above, the Bureau requests that, the HTP permit require only continued monitoring for constituents with 100% non-detects unless and until RP is demonstrated.

Response: USEPA and Regional Board staff evaluated the reasonable potential for Ocean Plan constituents using all effluent data provided by the City from January 1999 to June 2004. Since there is no RPA methodology in the existing and currently valid Ocean Plan, USEPA and Regional Board staff used the time-tested statistical procedure for determining reasonable potential recommended in Section 3.3.2 of *the Technical Support Document for Water Quality-based Toxic Control* (TSD), as described in permit Finding 52. EPA has promulgated similar RP procedures for some Great Lakes states lacking their own RPA procedures for water quality based permitting**.** The TSD does not include definite instructions on how to incorporate data in the DNQ or ND range. Therefore, consistent with the Orange County Sanitation District permit recently issued by USEPA, and considering the application of critical dilution ratios for the ocean discharge, USEPA and Regional Board staff intentionally choose a conservative approach of using maximum Method Detection Limits (MDL) in the determination of RP for constituents with 100% non-detected data.

USEPA and Regional Board staff are aware of this Amendment, as well as more recent proposed amendment to the California Ocean Plan that incorporates an RPA process. Until an RPA process is adopted by the State, USEPA's TSD procedures will be followed.

USEPA and Regional Board staff used all data available to conduct the RPA, as described in the Tentative Permit Fact Sheet. USEPA and Regional Board staff note that the use of the highest MDL is very conservative. However, USEPA and the Regional Board have also considered additional information provided by the City in its comment letter and have removed several effluent limits for constituents showing 100% non-detects. (Please see Comment No. 6 below.)

Modification: There is no change in the statistical RPA process in response to this comment. However, some effluent limits were removed after evaluation of additional information.

2. Comment: *The Bureau has conducted a RPA for acute toxicity with 1999 through 2004 HTP effluent monitoring data. The results of this analysis performed by the Bureau indicated no RP for acute toxicity for the five-mile outfall, 002. However, the Tentative Permit incorrectly includes an acute toxicity effluent limit for outfall 002. If a constituent does not have RP, by definition it does not threaten to cause or contribute to exceedances of Ocean Plan objectives. Therefore, effluent limits for constituents with no RP are not necessary, justified, or required by law. For this reason alone, the Bureau requests that the acute toxicity requirement for outfall 002 be removed from the Tentative Permit.*

The Bureau requests that the acute toxicity effluent limit for Outfall 002 be removed from the Tentative Permit since there is no RP for acute toxicity.

Response: The 2001 California Ocean Plan requires the use of marine species instead of freshwater species when conducting acute toxicity testing. The existing acute toxicity monitoring data for Hyperion Treatment Plant (HTP) effluent from January 1999 to June 2004 used freshwater species for testing. Therefore, USEPA and Regional Board staff believe that it is necessary to continue acute toxicity monitoring for the HTP effluent.

USEPA and Regional Board staff agree that effluent limits for constituents with no RP are not necessary. As a result of the RPA, effluent limits have been removed for 36 constituents when compared with the 1994 permit. We also agree that the results of the RPA based on the existing fresh water acute toxicity monitoring data conducted with ammonia exclusion do not indicate RP for acute toxicity. However, we believe that an acute toxicity effluent limit for Outfall 002 is required as a result of the RPA finding for acute toxicity described in Section XIII.B.4.a. of the Tentative Permit Fact Sheet. Also, an acute toxicity limit acts as the "backstop" for effluent limits that have been removed. In addition, there are more than 300 SIU's in the Hyperion Service Area that discharge into the HTP. Only a small subset of pollutants discharged is covered in the monitoring program. There is no requirement in the Tentative Permit for the testing of emerging chemicals that may have potential impact on the environment. Furthermore, the City's intention to divert urban runoff to HTP for treatment will increase the loading of pollutants to the HTP. For the reasons mentioned above as well as those described in response to comment 12, we believe that it is appropriate to prescribe an acute toxicity effluent limit for Outfall 002 in the Tentative Permit.

Modification: There is no change warranted in response to the comment.

3. **Comment:** *The proposed RPA process is overly conservative because, in cases of data sets with some detected values, RP is based on the highest of the maximum observed effluent concentrations and the highest detection limit. This approach tends to penalize the Bureau for previous technological limitations in analytical methods. It also ignores the technological advances and more accurate science that come with contemporary analytical techniques. This approach is also inconsistent with the TSD's RPA method and the RPA used in the City of Oxnard's recently adopted ocean discharge NPDES permit.*

The Bureau's review of the RPA in the Tentative Permit indicates that chlorinated phenolics were assigned RP for discharge outfall 001 as a result of this improper RPA procedure. A chlorinated phenolic compound was detected in the HTP 001 effluent only once, at 0.46 ug/L, whereas the MDLs for this class of compounds ranged from <0.4 to <8 ug/L. The Regional Board established RP solely based on the highest detection limit of <8 ug/L, rather than assessing reasonable potential using the one actual detected data point of 0.46 ug/L.

The Bureau requests that the effluent limit for chlorinated phenolics be deleted for the 001 discharge for the lack of true, scientifically determined RP.

Response: We agree that the RPA process used in the Tentative Permit is slightly different from the approach used in the City of Oxnard's NPDES permit. Since the TSD's RPA method does not specify how permitting authorities should determine a maximum effluent concentration, the method employed is intended to be conservative, but consistent with that used in USEPA's recently issued NPDES permit for Orange County Sanitation District. Based on the RPA process, it has been determined that there is RP for chlorinated phenolics for the Outfall 001 discharge.

We recognize the City's continuing effort to achieve lower detection limits and that this RP procedure ultimately rewards dischargers with low detection limits. These low detection limits will be fully considered when we renew the permit in the future.

Modification: There is no change warranted in response to the comment.

4. **Comment:** *In Finding 61 of the Tentative Permit, the Regional Board appears to have developed a new RP process by assigning numeric effluent limits for non-RP constituents that have performance goals less stringent than Ocean Plan-based effluent limits [See Finding 61, last bullet]. Although no limits appear to have been assigned due to performance goals being higher than corresponding effluent limits in this Tentative Permit, the Bureau believes that this stated practice is inconsistent with federal regulations and the TSD in which a finding of RP, not performance goals, triggers the imposition of numeric effluent limits. (See 40 C.F.R. §122.44(d)(1)(i)(assuming arguendo that this regulation applies to publicly owned treatment works (POTWs), this regulation only requires effluent limitation for pollutants "discharged at a level which will cause, or contribute to an excursion above any State water quality standard") If RP is not found, effluent limitations are not required. See Communities for a Better Environment v. State Water Resources Control Board, 109 Cal. App. 1089, 1094 (2003); see also In the Matter of the Petitions of County Sanitation District No. 2 of Los Angeles and Bill Robinson, SWRCB Order No. WQO 2003-0009 at pgs. 7-10 (holding that effluent limitations without RP should be removed notwithstanding antibacksliding rules).*

   The Bureau requests that the Regional Board not assign numeric effluent limits to constituents without demonstrated RP and delete the last bullet in Finding 61.

   Response: We agree that because this Finding does not serve as the basis for establishing WQBELs in the Permit, the last bullet in Finding 61 should be revised.

   Modification: The last bullet of Finding 61 is revised as follows:

   - For constituents with no RP, ~~If~~ if the performance goal derived from the above steps exceeds the respective calculated Ocean Plan effluent limit, the calculated WQBEL is then prescribed as the performance goal for ~~the~~ that constituent ~~and no performance goal is prescribed~~.

5. Comment: *The Bureau has concerns about the Regional Board's RPA procedure for substituting one-half of the detection limit for all data below detection. This approach to handling non-detects can introduce significant bias into the calculation of the Coefficient of Variation (CV) used in the RPA process. Substitution of any arbitrary value for data below detection can result in over- or under-estimation of the mean and standard deviation used to calculate the CV, and the problem becomes worse with higher percentages of substituted data. Additionally, the results can be unduly biased by high MDLs, which may provide no information about the probable concentration in the effluent. There are statistically valid and unbiased methods, such as the Helsel and Cohn method [1988], which should be used in cases where some data are below detection.*

In order to obtain a more statistically based RPA, the Bureau requests that the RPA for the HTP permit use the approach developed by the SWRCB for amendment into the COP, which specifies the Helsel and Cohn method for dealing with non-detects.

Response: The RPA procedure in the TSD has no specific instructions regarding how to substitute nondetect data with a numeric data. We notice that simple substitution methods tend to perform poorly in statistical tests when the nondetect percentage is substantial. However, this substitution of nondetect with one-half of detection has been consistently used in the development of other permits. We will implement other statistical method for dealing with nondetects in the future if the methodology is adopted by the State Board.

Modification: There is no change warranted in response to the comment.

Unnecessary Effluent Limitations Based on Table B of the Ocean Plan for Nine Non-Detected Constituents.

6. Comment: *In addition to the Bureau's above request to modify the procedures used for the RPA, the Bureau has obtained evidence based on sediment and fish tissue samples taken in the discharge area of Santa Monica Bay that RP does not exist for the following constituents that were 100% non-detected in the 1999-2004 HTP effluent data set:*

Aldrin, Benzidine, 3,3'-Dichlorobenzidine, Hexachlorobenzene, and Toxaphene

These five constituents have never been detected in sediments, fish tissue, or effluent from 1999 to the present. Effluent limits are unnecessary because no adverse impacts to beneficial uses have been linked to the Bureau's discharge of these constituents in non-detected levels, and it is unlikely that a future problem will develop. The Bureau will continue to monitor for these constituents, but assigning effluent limits not required by law will place an unnecessary regulatory burden on the Bureau with no corresponding environmental benefit.

Dieldrin, Heptachlor, and Heptachlor Epoxide

While these three constituents were sporadically detected in sediments due to historic loadings, these constituents were undetected in at least 97% of the sediment and fish tissue

samples. Dieldrin exceeded its Effects Range Low (ERL) and Apparent Effects Threshold (AET) in 1999 on 6 occasions and 2 occasions, respectively, but was undetected in sediments every year after 1999, the time period most relevant to this permit's adoption. Similarly, heptachlor epoxide was also detected in 1 sample in 1999 and was never detected after that year. Heptachlor was also never detected in sediments.

With respect to fish tissue samples, the same pattern recurs. All 3 constituents were detected in 1999 and were never detected after that year. All samples met the Food and Drug Administration's (FDA) fish tissue criteria for human health, although all 3 detected measurements of dieldrin in 1999 exceeded the Maximum Tissue Residue Levels (MTRLs).

Because the number of detects was so low, and it appears that any recurrence of these constituents at possible levels of concern disappeared after 1999, assigning effluent limits to these constituents would place an unnecessary regulatory burden on the Bureau with no tangible environmental benefit. Continuing to monitor for these constituents seems to be a more reasonable alternative to forestall the occurrence of any environmental impacts in the future. If RP is determined in the future, the permit contains a provision allowing a reopener to add effluent limits in this event.

<u>Chlordane and its Components</u>

The constituents measured in fish tissue and sediments that fall into the category of chlordane include alpha and gamma chlordane, alpha and gamma chlordene, cis- and trans- nonachlor, and oxychlordane. All of these parameters, in addition to total chlordane, were measured in fish tissue and sediment.

In fish tissue, oxychlordane, cis-nonachlor, and gamma chlordane were never detected. (See Comment Matrix comment number 55 regarding alpha and gamma chlordene.) Alpha chlordane and trans-nonachlor were detected in 1999 through the beginning of 2001, but never after this point. Total chlordane was only analyzed in 1999 and 2000 in fish tissue. In 1999, 3 out of 5 detected total chlordane measurements exceeded the MTRL. (See footnote 5.) Total chlordane was not detected in 2000.

In sediments, only alpha and gamma chlordane, oxychlordane, and cis- and trans-nonachlors were measured from the year 2000 forward. Total chlordane was measured only in 2002. Alpha and gamma chlordane were detected 17 times and 1 time, respectively, in 1999. Alpha and gamma chlordane were detected only once thereafter in 2001. Oxychlordane was not detected in the sediment from 1999 through 2001 and total chlordane was not detected in 2002.

Based on the fish tissue and sediment data, it is clear that chlordane levels and any potential problems associated with chlordane are diminishing, if not gone. Because of historical levels of chlordane in the sediments and fish tissue, continued monitoring for chlordane is advisable, but assigning an effluent limit to chlordane will not increase protection of the marine environment.

The Tentative Permit states that an effluent limit for chlordane must be assigned because the sediments are listed for chlordane. This is not a valid reason for requiring an effluent limit unless RP has been validly established based on applicable water quality standards since neither a 303(d) listing nor a sediment listing is conclusive evidence of a lack of assimilative capacity in the receiving waters. See In the Matter of the Review on its Own Motion of the Waste Discharge Requirements for the Avon Refinery, State Board Order No. 2001-0006 at pg. 20 ("a 303(d) listing alone is not a sufficient basis on which to conclude that a water necessarily lacks assimilative capacity for an impairing pollutant. The listing itself is only suggestive; it is not determinative.") Furthermore, this sediment listing will likely be removed when the State's 2004 303(d) list is compiled. Because only data after May 15, 2001 are to be evaluated for this listing cycle, it is likely that this listing will be removed from the 303(d) list of impaired waters.

In summary, based on the fish tissue, sediment, and effluent monitoring data (see Attachment 3), no adverse impacts on the marine environment due the pollutants discussed above are evident. Future impacts also appear unlikely because the concentrations of these constituents are decreasing or not longer detectable in fish tissue and sediments. (See Attachment 3 at Table 1.) As such, assigning effluent limits to these constituents is not required and will not increase protection of the ecosystem surrounding HTP's outfalls, but will place an unnecessary regulatory burden on the Bureau.

Accordingly, the Bureau requests that the effluent limits for these 9 constituents (Aldrin, Benzidine, 3,3'-Dichlorobenzidine, Hexachlorobenzene, Toxaphene, Dieldrin, Heptachlor, Heptachlor Epoxide, and Chlordane and its components) be removed.

Response: USEPA and Regional Board staff evaluated the reasonable potential for Ocean Plan constituents using effluent data provided by the permittee for January 1999 through June 2004. In this evaluation, USEPA and Regional Board staff used the statistical procedure for determining reasonable potential recommended in Section 3.3.2 of EPA's *Technical Support Document for Water Quality-based Toxics Control* (EPA/505/2-90-001, March 1991; TSD). These procedures are described in the draft permit findings and Fact Sheet. The procedure used by USEPA and Regional Board staff considered: (1) controls at the permittee's treatment facility, as indicated by the quality of the effluent discharge and a consideration of proposed influent wastestreams; (2) the variability of pollutants in the effluent discharge, statistically estimated using reasonable potential multipliers calculated directly from the permittee's effluent data (see permit Findings 50 and 52); (3) the sensitivity of test species exposed to effluent toxicity present at the "in-stream waste concentration", through an evaluation of toxicity test data collected under the current permit that required periodic effluent screening for toxicity to evaluate species sensitivity to effluent toxicants; and (4) the allowable Ocean Plan dilution factors of 84:1 for effluent discharged through Outfall Serial No. 002 and 13:1 for effluent discharged through Outfall Serial No. 001 (see Tables R2 and R1, respectively).

For several pollutants in the effluent discharge, USEPA and Regional Board staff determined that because some reported effluent detection limits were too high to establish that the Hyperion Treatment Plant discharge did not exceed applicable Ocean Plan

objectives following initial dilution of the effluent, and because these pollutants can be found in POTW effluents and/or stormwater and urban dry weather flows, a conservative reasonable potential decision was warranted and effluent limits to protect water quality were prescribed in the draft permit.

Because the permittee provided additional data for benzidine, 3,3'-dichlorobenzidine, hexachlorobenzene, toxaphene, aldrin and dieldrin, heptachlor and heptachlor epoxide, and chlordane during the public comment period, USEPA and Regional Board staff have reviewed this information in formulating responses to comments and decisions regarding effluent limits for these constituents in the final permit. Please note that the discussion below includes general summaries taken from chemical profiles developed by the Agency for Toxic Substances and Disease Registry (http://www.atsdr.cdc.gov/toxfaq.html), EPA's Persistent Bioaccumulative and Toxic Chemical (PBT) Program website (http://www.epa.gov/opptintr/pbt/), and EPA's Great Lakes Pollution Prevention and Toxics Reduction website (http://www.epa.gov/glnpo/bns/baphcb/HCB_Rdcn.html).

Benzidine

Benzidine is a manufactured chemical used to produce dyes for cloth, paper and leather. In the U.S., it is no longer produced or used commercially, but may still be produced for in-house use under stringent controls. Benzidine-based dyes may still be imported into the U.S. and can be purchased commercially. Benzidine is moderately persistent in the environment and readily attaches to soil particles. Limited data have shown that benzidine can bioconcentrate in aquatic organisms. It has been shown that benzidine may degrade in sewage treatment systems.

Benzidine	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<5 - <47	0.005865
Outfall 001	<5 - <47	0.000966

As shown in the Table above, the effluent detection limit for benzidine ranged from <47 ug/l in January 1999 to <5 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.005865 ug/l. For Outfall Serial No. 001, the calculated effluent limit is 0.000966 ug/l. Although effluent detection limits have improved over the previous permit term, all reported effluent detection limits for benzidine are too high to establish that the Hyperion Treatment Plant discharge will not exceed applicable Ocean Plan objectives following initial dilution of the effluent. As noted previously, benzidine is moderately persistent in the environment. Because the permittee reports that benzidine has not been detected in sediments or fish tissue in the vicinity of the discharge since 1999, EPA and the Regional Board now conclude that there is currently no reasonable potential for benzidine in Hyperion Treatment Plant discharges from Outfall Serial Nos. 002 and 001 to exceed water quality standards. Consequently, water quality based effluent limits for benzidine are not included in the final permit.

3,3'-Dichlorobenzidine

3,3'-dichlorobenzidine is a manufactured chemical used for pigments for printing inks, textiles, plastics and enamels, paint, leather and rubber. It is no longer manufactured in the U.S., but is imported for on-site processing or to synthesize pigments. Dissolved 3,3'-dichlorobenzidine in solution has a strong tendency to adsorb to sediment. It does not appear to biodegrade easily and is bioconcentrated by aquatic organisms under experimental conditions. Limited data suggests that 3,3'-dichlorobenzidine may photolyze in water to yield benzidine. Due to the secondary treatment process, only a small percentage of any 3,3'-dichlorobenzidine that might enter a POTW is subsequently released to surface water.

3,3'-Dichlorobenzidine	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.11 - <2	0.6885
Outfall 001	<0.11 - <2	0.1134

The effluent detection limit for 3,3'-dichlorobenzidine ranged from <2 ug/l in January 1999 to <0.11 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.6885 ug/l. For Outfall Serial No. 001, the calculated effluent limit is 0.1134 ug/l.

Because effluent detection limits have improved over the previous permit term, more recent reported effluent detection limits for 3,3'-dichlorobenzidine are low enough to enable us to conclude that recent data indicate that the Hyperion Treatment Plant discharge should not exceed applicable Ocean Plan objectives following initial dilution of the effluent. As noted previously, 3,3'-dichlorobenzidine does not biodegrade easily in the environment and can also degrade to benzidine. Because the permittee reports that both 3,3'-dichlorobenzidine and benzidine have not been detected in sediments or fish tissue in the vicinity of the discharge since 1999, EPA and Regional Board staff now conclude that there is currently no reasonable potential for 3,3'-dichlorobenzidine in Hyperion Treatment Plant discharges from Outfall Serial Nos. 002 and 001 to exceed water quality standards. Consequently, water quality based effluent limits for 3,3'-dichlorobenzidine are not included in the final permit.

Hexachlorobenzene

Hexachlorobenzene (HCB) was once widely used in agricultural settings as a pesticide and fungicide and for a variety of industrial processes. Although HCB is no longer directly used as a commercial end product in the U.S., limited amounts are produced for laboratory use. HCB may still be formed as a byproduct in several industrial chemical manufacturing processes, in aluminum casting, and in the chlorination treatment of process water and wastewater. HCB can be released to the environment during the application of pesticide formulations which contain HCB as a residual contaminant, and during waste incineration of chlorine-containing materials. Sources of HCB to POTWs may include domestic residential releases, industrial/commercial discharges, and stormwater runoff; and from HCB-contaminated ferric chloride used in the wastewater treatment process.

HCB is a highly persistent environmental toxin. It has low water solubility and can be found in sediments, food crops, fish and animal tissue. It undergoes long-range transport in the atmosphere and bioaccumulates in fish, marine animals, birds and animals that feed on fish.

Hexachlorobenzene (HCB)	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.07 - <1	0.01785
Outfall 001	<0.07 - <1	0.00294

The effluent detection limit for HCB ranged from <1 ug/l in January 1999 to <0.07 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.01785 ug/l. For Outfall Serial No. 001, the calculated effluent limit is 0.00294 ug/l.

Although effluent detection limits have improved over the previous permit term, all reported effluent detection limits for HCB are too high to establish that the Hyperion Treatment Plant discharge will not exceed applicable Ocean Plan objectives following initial dilution of the effluent. As noted previously, HCB is highly persistent in the environment. Because the permittee reports that HCB has not been detected in sediments or fish tissue in the vicinity of the discharge since 1999, USEPA and Regional Board staff now conclude that there is currently no reasonable potential for HCB in Hyperion Treatment Plant discharges from Outfall Serial Nos. 002 and 001 to exceed water quality standards. Consequently, water quality based effluent limits for HCB are not included in the final permit.

Toxaphene

Toxaphene is an insecticide that was principally used to control insect pests on cotton. It was also used to control insect pests on other field crops, livestock and poultry, and kill unwanted fish in lakes. Toxaphene solutions were often mixed with other pesticides to help solubilize insecticides with low water solubility. It was frequently applied with methyl or ethyl parathion, DDT, lindane, and rotenone. In the U.S., toxaphene has been banned for all uses since 1990. It does not dissolve well in water so it is more likely to be found in sediments. It breaks down slowly in the environment and accumulates in fish and mammals.

Toxaphene	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.1 - <0.113	0.01785
Outfall 001	<0.1 - <0.113	0.00294

As shown in the Table above, the effluent detection limit for toxaphene ranged from <0.113 ug/l in January 1999 to <0.1 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.01785 ug/l. For Outfall Serial No. 001, the calculated effluent limit is

0.00294 ug/l. Although reported effluent detection limits for toxaphene have somewhat improved over the previous permit term, they are often too high to establish that the Hyperion Treatment Plant discharge will not exceed applicable Ocean Plan objectives following initial dilution of the effluent. As noted previously, toxaphene is persistent in the environment; in water, toxaphene is strongly adsorbed to suspended particulates and sediments and is bioconcentrated by aquatic organisms to fairly high levels. Because the permittee reports that toxaphene has not been detected in sediments or fish tissue in the vicinity of the discharge since 1999, EPA and Regional Board staff now conclude that there is currently no reasonable potential for toxaphene in Hyperion Treatment Plant discharges from Outfall Serial Nos. 002 and 001 to exceed water quality standards. Consequently, water quality based effluent limits for toxaphene are not included in the final permit.

Aldrin and Dieldrin

In the U.S., aldrin and dieldrin were widely used as soil insecticides in agricultural settings, to control termite infestations, and in public health settings for vector control, until they were banned for all uses in 1987. In the environment, aldrin is readily converted to dieldrin. Known sources of these pesticides include: atmospheric transport, contaminated soils from historical applications, contaminated building materials from termiticide applications, and hazardous waste sites. Dieldrin has been detected in all environmental media. Aldrin detections are much lower and less frequent, since it is rapidly converted to dieldrin through chemical and biological processes. Concentrations of dieldrin in surface waters are generally higher than those of many other highly persistent organochlorine pesticides, primarily due to its greater preference for the water phase. However, both aldrin and dieldrin tend to accumulate in biological tissues and are primarily detected as dieldrin.

Aldrin	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.0016 - <0.008	0.00187
Outfall 001	<0.0016 - <0.008	0.000308
Dieldrin	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.0009 - <0.006	0.0034
Outfall 001	<0.0009 - <0.006	0.00056

As shown in the Table above, the effluent detection limit for aldrin ranged from <0.008 ug/l in January 1999 to <0.0016 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.00187 ug/l, and for Outfall Serial No. 001, the calculated effluent limit is 0.00308 ug/l. The effluent detection limit for dieldrin ranged from <0.006 ug/l in January 1999 to <0.0009 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.0034 ug/l, and for Outfall Serial No. 001, the calculated effluent limit is 0.00056 ug/l.

Effluent detection limits have improved over the previous permit term, such that recent reported effluent detection limits for both aldrin and dieldrin are low enough to enable us to

conclude that recent data indicate that the Hyperion Treatment Plant discharge from Outfall Serial No. 002 should not exceed applicable Ocean Plan objectives following initial dilution of the effluent. Although effluent detection limits for aldrin and dieldrin are elevated in comparison to the calculated effluent limit for Outfall Serial No. 001, discharge from this Outfall is infrequent and limited in volume. The permittee reports that aldrin has not been detected in sediments or fish tissue, and that dieldrin (the breakdown product of aldrin) has been infrequently detected (<3 percent of the time) in sediments and fish tissue samples in the vicinity of the discharge. Although dieldrin detections have been above levels at which adverse biological effects and significant human health problems are expected, dieldrin has not been detected in sediments or fish tissue samples in the vicinity of the discharge since 2001. As noted previously, aldrin and dieldrin tend to bioaccumulate in biological tissues and are detected primarily as dieldrin. Based on recent effluent, sediment and fish tissue data for aldrin and dieldrin provided by the permittee, EPA and Regional Board staff now conclude that there is currently no reasonable potential for dieldrin and aldrin in Hyperion Treatment Plant discharges from Outfall Serial Nos. 002 and 001 to exceed water quality standards. Consequently, effluent limits for these two pollutants are not included in the final permit.

Heptachlor and Heptachlor epoxide

Heptachlor was extensively used in agricultural and urban settings as an insecticide until use stopped in 1988. Heptachlor is also a constituent of technical grade chlordane (approximately 10% by weight). Heptachlor epoxide is an oxidation product of heptachlor and of chlordane. Heptachlor epoxide degrades more slowly and is more persistent than heptachlor. Both compounds adsorb strongly to sediments and are bioconcentrated in aquatic food chains and terrestrial organisms, primarily has heptachlor epoxide.

Heptachlor	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.002 - <0.005	0.00425
Outfall 001	<0.002 - <0.005	0.0007
Heptachlor Epoxide	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.0018 - <0.001	0.0017
Outfall 001	<0.0018 - <0.001	0.00028

As shown in the Table above, the effluent detection limit for heptachlor ranged from <0.005 ug/l in January 1999 to <0.002 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.00425 ug/l, and for Outfall Serial No. 001, the calculated effluent limit is 0.0007 ug/l. The effluent detection limit for heptachlor epoxide ranged from <0.001 ug/l in January 1999 to <0.0018 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit is 0.0017 ug/l, and for Outfall Serial No. 001, the calculated effluent limit is 0.00028 ug/l.

Generally, reported effluent detection limits for heptachlor and heptachlor epoxide are too high to establish that the Hyperion Treatment Plant discharge will not exceed applicable Ocean Plan objectives following initial dilution of the effluent. The permittee reports that heptachlor is only infrequently detected (≤3 percent of the time) in fish tissue samples and that heptachlor epoxide (a breakdown product of heptachlor) is infrequently detected (≤3 percent of the time) in sediments and fish tissue samples in the vicinity of the discharge. Sediment and/or tissue concentrations are measured at levels below which adverse or significant biological effects or human health problems are expected. Heptachlor and heptachlor epoxide have not been detected in sediments or fish tissue samples in the vicinity of the discharge since 2001. There are no 303(d) listings for these pollutants in the vicinity of the discharge. Based on this new information, USEPA and Regional Board staff now conclude that there is currently no reasonable potential for heptachlor or heptachlor epoxide in Hyperion Treatment Plant discharges from Outfall Serial Nos. 002 and 001 to exceed water quality standards. Consequently, water quality based effluent limits for these pollutants are not included in the final permit.

Chlordane

Chlordane, an organochlorine insecticide, was widely used in agricultural on field crops such as corn and citrus fruits, and in urban settings to control termites in houses and for home and garden use, until it was banned in 1988. Technical chlordane is not a single chemical but a mixture of pure chlordane with more than 140 other related compounds. Chlordane is extremely persistent in the environment. Sources include contaminated building materials from termiticide application, soils to which chlordane was historically applied, and hazardous waste sites. It may be found in urban runoff and sewage sludge. Adsorption to sediments and volatilization are important removal mechanisms in water. Chlordane has low water solubility and can be found in sediments, food crops, and fish and animal tissue. The ultimate fate of chlordane in oceans is in the bottom sediment. It is known to bioaccumulate in marine organisms.

Chlordane	Effluent Concentration (ug/l)	Calculated Effluent Limit (ug/l)
Outfall 002	<0.005 - <0.09	0.001955
Outfall 001	<0.005 - <0.09	0.000322

The effluent detection limit for chlordane ranged from <0.005 ug/l in January 1999 to <0.09 ug/l in June 2004. For Outfall Serial No. 002, the calculated effluent limit for chlordane is 0.001955 ug/l. For Outfall Serial No. 001, the calculated effluent limit for chlordane is 0.000322 ug/l.

Recent reported effluent detection limits for chlordane are too high to establish that the Hyperion Treatment Plant discharge will not exceed applicable Ocean Plan objectives following initial dilution of the effluent. The permittee reports that chlordane and its breakdown products are detected <13 percent of the time in sediments and/or fish tissue samples within the vicinity of the discharge. The permittee provides minimal discussion

related to these sediment and tissue concentrations and how these data relate to threshold levels used by NOAA, FDA, EPA and California to establish adverse or significant biological effects or human health problems based on sediment and fish tissue levels. Although the permittee asserts that "potential problems associated with chlordane are diminishing, if not gone", there is a current 303(d) listings for chlordane in sediments in the vicinity of the discharge with potential sources given as both nonpoint and point sources. During this permit term, total chlordane measurements in fish from the vicinity of the discharge have periodically exceeded California's Maximum Tissue Residual Level for fish tissue. As described in draft permit Finding 54 and the Fact Sheet, the draft permit does not propose new WQBELs for chlordane, but recommends carrying forward mass emission and concentration WQBELs contained in the 1994 permit until the TMDL for chlordane (sediments) scheduled for 2006 is completed. Based on the information described above and because chlordane is known to occur in municipal effluents, sewage sludge and urban runoff, a conservative reasonable potential decision is warranted. Consequently, to ensure water quality protection as a result of Hyperion Treatment Plant discharges, the final permit continues forward mass emission and concentration WQBELs for chlordane contained in the 1994 permit.

Modification: In response to the comment, the effluent limits for 8 constituents (Aldrin, Benzidine, 3,3'-Dichlorobenzidine, Hexachlorobenzene, Toxaphene, Dieldrin, Heptachlor, and Heptachlor Epoxide) are removed but the effluent limits for chlordane and its compounds are retained. In addition, a brief finding has been added to Finding 53 of the Tentative Permit to reflect the results of the above analyses.

Performance Goals (PGs)

7. **Comment:** *The Regional Board has eliminated PGs from the region's inland discharge permits because of the increased stringency of effluent limits imposed by the State Implementation Plan (SIP) and California Toxics Rule (CTR) requirements. The Bureau believes that there is justification to eliminate PGs from ocean discharges as well due to the increased stringency of such permits under the current system, which includes RPA and WQBELs for toxic constituents. Constituents without RP in the Tentative Permit by definition are not threatening to cause or contribute to exceedances of Ocean Plan objectives, and effluent limits for constituents with no RP are, therefore, no longer justified or necessary.*

   Very few recent Ocean Plan permits include PGs, in large part because of the recognition that RPA procedures are extremely conservative, and effluent quality performance goals are not needed to protect receiving waters from potential exceedances of water quality objectives. For example, Orange County Sanitation District's recent ocean discharge permit issued jointly by the Santa Ana Regional Board and U.S. EPA did not contain performance goals.

   Accordingly, the Bureau requests that all PGs be removed from the HTP permit since constituents without RP are not threatening to cause or contribute to exceedances of the Ocean Plan.

Response: USEPA and Regional Board staff believe that RPA and PGs are two independent issues and they are not related. As stated in Finding 61 "The performance goals are based upon the actual performance of the Hyperion Treatment Plant and are specified only as an indication of the treatment efficiency of the facility. Performance goals are intended to minimize pollutant loading (primarily for toxics) and, while maintaining the incentive for future voluntary improvement of water quality whenever feasible, without the imposition of more stringent limits based on improved performance." In addition, considering the Ocean Plan's allowance for a dilution ratio, the large scale of HTP, and the possible change of effluent quality due to the acceptance of urban runoff diversion, we believe that it is appropriate to prescribe PGs in the Tentative Permit.

PGs have been consistently included in the existing adopted ocean discharge permits such as permits for Oxnard Wastewater Treatment Plant and Avalon Wastewater Treatment Facility. The Orange County Sanitation District's ocean discharge permit recently issued by USEPA also has mass emission benchmarks based on performance. The only difference is that the HTP Tentative Permit contains both concentration and mass performance goals. The concentration based performance goals are used to signal changes in effluent quality during the term of the permit and to evaluate resulting effects on water quality in Santa Monica Bay, whereas the mass emission benchmark is for assessing antidegradation at the end of the permit term.

Modification: There is no change warranted in response to the comment.

8. **Comment:** *The Regional Board has also assigned PGs to outfall 001, which is used only during emergencies. The assignment of PGs to an outfall, which is used only intermittently, is not practical. The Regional Board's justification for PGs is to ensure that normal plant operations and effluent quality are maintained simply does not apply to outfall 001. Therefore, at minimum, the PGs must be removed from outfall 001 as they are unnecessary and serve no demonstrable purpose.*

   The Bureau requests that PGs for outfall 001 be removed from the permit since they are unnecessary and impracticable.

   Response: USEPA and Regional Board staff agree that PGs for Outfall 001 are not necessary for an emergency discharge and they have been removed.

   Modification: PGs for Outfall 001 have been removed in the Tentative Permit.

9. **Comment:** *Should PGs be maintained in the HTP permit notwithstanding the above requests, the Bureau believes that the PG procedures used in the Tentative Permit are overly-conservative, do not adequately account for uncertainty of estimates of projected performance, and in some cases do not result in actual performance-based goals at all. Specifically, the Bureau has serious concerns about the policies and statistical validity of the following aspects of the PG procedures used by the Regional Board for the Tentative Permit:*

Uncertainty is not Accounted for in PG Calculations. The RPA procedures are extremely conservative in assessing the potential for causing exceedances of water quality objectives in the receiving water because of the uncertainty in projecting high-percentile effluent concentrations. When performed correctly, the RPA procedures account for this uncertainty by applying statistically based "multipliers" to estimate a probability-based effluent concentration at a selected confidence limit. If these statistically based procedures are appropriate for determining RP, they are equally appropriate for determining performance goals. The procedures used by the Regional Board to generate PGs do not account for the same uncertainty of the estimates of high-percentile effluent concentrations used as PGs. If PGs are justified for parameters that have been determined not to have RP (and the Bureau believes they are not), the PGs should be determined using procedures consistent with the final RPA procedures utilized in the permit. That is, performance goals for parameters without RP should be equal to the statistically based projected effluent concentrations used to assess RP (e.g., the 99th percentile upper confidence limit for the 99th percentile effluent concentration). These projected effluent concentrations, as calculated by the RWQCB's RPA included with the Tentative Permit, are listed in Attachment 4.

Use of Maximum Detected Effluent Concentration [MDEC] instead of a Calculated Percentile. *Use of Maximum Detected Effluent Concentration [MDEC] instead of a Calculated Percentile. If an unbiased specified percentile PG can be calculated using adequate data and appropriate statistical methods, there is no statistically valid reason to replace the calculated or estimated percentile PG with the MDEC. Because the MDEC is dependent on the number of data collected, it will not provide a valid, statistically based PG. This method will produce a PG that doesn't adequately consider the variability of the effluent data and arbitrarily reduces the PG to an undefined lower percentile. Because the MDEC is dependent on the number of data collected, dischargers with fewer effluent data will generally get more stringent performance goals than dischargers with more data. Additionally, some of the MDECs are based on Detected Non-Quantifiable (DNQ) data. Thus, some of the PGs are set equal to DNQ values, which are not a true representation of the actual performance and not statistically valid. If the intent of the Regional Board is to provide consistent and equitable PGs for all dischargers, then the best, unbiased statistical estimate of the specified percentile effluent quality should not be replaced with the MDEC.*

If PGs are maintained, the Regional Board should eliminate the above-noted invalid statistical approaches in the HTP PG calculations in order to obtain a more scientifically accurate picture of plant performance when setting PGs. One step in this direction would be to set PGs at the projected effluent concentrations calculated by the RPA process that is utilized in the final permit.

Response: USEPA and Regional Board staff believe that both PG procedures and the RPA process are valid but are serving two different objectives. The projected effluent concentration calculated by the RPA process takes into consideration the uncertainty derived from limited amounts of monitoring data. As a result, projected effluent concentrations are larger than the corresponding maximum effluent concentrations in the monitoring data set. We agree that the use of projected effluent concentrations in the RPA

is very conservative; RPA is a decision that if made in error, can result in unlimited toxic discharge and degradation of water quality. However, we believe that it is not appropriate to use them as PGs since these calculated effluent concentrations are estimated, based on a population consisting of limited existing data and other projected data. They are not necessary to reflect the actual performance of the facility. Since PGs serve as an indicator of the treatment efficiency of the facility, the determination of PGs should be based on available monitoring data assuming a lognormal distribution for these data. This same approach has been consistently applied in the derivation of interim limits in other permits. The statistical methodology is also specified in Appendix E of the TSD as a way for calculating performance-based permit limits. Furthermore, we intentionally replace a calculated PG with a MDEC if a calculated PG is larger than a corresponding MDEC because we believe that the MDEC in the five and half year monitoring period is representative of the worst effluent quality.

Modification: There is no change warranted in response to the comment.

10. **Comment:** *The PGs included in the Tentative Permit are in many cases several orders of magnitude more stringent than the previous permit and will likely force the Bureau to perform additional monitoring and reporting. Again, these requirements appear to be punitive. Instead of rewarding the Bureau for making great strides in reducing the pollutant concentrations from HTP, the Regional Board and U.S. EPA propose to add more onerous reporting requirements that will be triggered more often by these much more stringent PGs. As noted above, the Bureau will accept, in place of the proposed PGs, PGs based on projected effluent concentrations as calculated in the Regional Board's RPA. (See Attachment 4).*

Another aspect of the punitive nature of PGs is that there is no lower limit to them. When HTP went from partial to full secondary, performance improved and PGs were lowered as a result of increased removal efficiencies. If performance continues to improve for whatever reason, then PGs could be further lowered to a new 95th percentile value. Instead of being rewarded for exceptional performance, the discharger would be further penalized with a new and lower performance goal. The design of PGs also does not take into account whether there is any measurable environmental benefit in the continuous lowering of PGs over time.

The Tentative Permit requires that the "Discharger shall maintain, if not improve, its treatment efficiency. Any exceedance of the performance goals shall trigger an investigation into the cause of the exceedance. If the exceedance persists in two successive monitoring periods, the City shall submit a written report to the Regional Board and USEPA on the nature of the exceedance, the results of the investigation as to the cause of the exceedance, and the corrective actions taken or proposed corrective measures with timetable for implementation, if necessary."

Because a 5 % exceedance is built into the PGs as presently calculated, the Bureau also requests that if PGs are not either removed or modified as requested above, then, at the very least, the reporting and investigation requirements not be required to be implemented until there have been <u>three</u> successive exceedances. At least this modification would somewhat

lessen the financial burden of doing constant investigations and reports based on the statistical chances for 2 successive exceedances. If 3 successive exceedances occur, then a report and investigation would be warranted since the chances of an exceedance being due to a statistical anomaly would be decreased.

If PGs are maintained, the Bureau requests that the need, burden (including cost), and justification for these Performance Goal related investigations and reports be analyzed under Water Code §13267(b)(1) and §13225(c) prior to issuance of this permit. At the very least, the Bureau requests that reporting and investigation requirements not to be triggered until there have been three consecutive exceedances of a particular PG.

Response: Finding 61 of the Tentative Permit states "[p]erformance goals are intended to minimize pollutant loading (primarily for toxics) and, while maintaining the incentive for future voluntary improvement of water quality whenever feasibility, without the imposition of more stringent limits based on improved performance." Since the concentration based performance goals are reflecting the actual performance, we agree that the concentration based PGs will be lowered as the HTP continues to improve its removal efficiency.

USEPA and the Regional Board are aware that our conservative approach of setting PGs will result in more stringent PGs. As a result, the investigation and reporting requirements may be triggered more often. Therefore, we change the threshold of the triggering reporting requirement from "two exceedances" to "three exceedances" of a particular PG.

Modification: Section I.A.2. of the Tentative Permit has been revised as follows:

> "…If the exceedance persists in ~~two~~ three successive monitoring periods, the City shall submit a written report to the Regional Board and USEPA on the nature of the exceedance, the results of the investigation as to the cause of the exceedance, and the corrective actions taken or proposed corrective measures with timetable for implementation, if necessary."

Chlorine Residual

11. Comment: *The Tentative Permit includes effluent limits for chlorine residual. The Regional Board's RPA Spreadsheet shows 100 percent non-detects for chlorine residual monitoring of effluent. The Bureau does not perform chlorination for its discharge of secondary effluent through outfall 002. Hyperion effluent is chlorinated only during emergencies when chlorinated secondary treated effluent is discharged through outfall 001, which occurs infrequently. The Regional Board's procedure to apply effluent limits to constituents without RP is contrary to long standing U.S. EPA procedures for establishing WQBELs. Effluent limits should only be set if there exists a reasonable potential to cause or contribute to a violation of water quality standards.*

Because there is no RP, the Bureau requests that effluent limits for chlorine residual be removed.

Response: There are seven detected results for chlorine residual ranging from 0.1 mg/L to 0.4 mg/L during the reporting period from January 1999 to June 2004. Based on 0.4 mg/L as MDEC for chlorine residual, the result of the RPA in the Tentative Permit shows that there is a RP for chlorine residual. Therefore, the effluent limit for chlorine residual was prescribed in the Tentative Permit. However, the Discharger believes that the detected chlorine residual in the sample was caused by contamination when test samples for chlorine residual were taken without adequate flushing after periodical chlorination of the sampling line in order to prevent algal growth.

Since there is a total of 2369 samples for chlorine residual during the reporting period, USEPA and Regional Board staff believe that the Discharger's explanation is reasonable. In addition, Hyperion effluent is not chlorinated when it is routinely dicharged through Outfall 002. Therefore, we agree that there is no RP for chlorine residual when the effluent is discharged through Outfall 002. The effluent limit for chlorine residual for Outfall 002 in the Tentative Permit is removed. However, we retain the effluent limit for chlorine residual for Outfall 001 since the effluent is required to be chlorinated when it is discharged through Outfall 001.

Modification: The effluent limit of chlorine residual for Outfall 002 is removed, but is retained for Outfall 001. A brief finding has been added to Finding 53 of the Tentative Permit to reflect the above determination.

Toxicity Requirements
(Additional comments on Toxicity Limits and Monitoring from attachment 6 will be addressed at the end of this letter)

12. Comment: *Acute Toxicity. The Ocean Plan does not require the inclusion of acute toxicity in the Tentative Permit. When the dilution credit is less than 100:1, as is the case in the Hyperion Tentative Permit, there is no requirement for inclusion of acute toxicity testing, or limits. It is only when the dilution factor is greater than 100:1 that the Ocean Plan provides the Regional Board with discretion to include acute toxicity testing and limits. Although the Santa Ana Regional Board included acute toxicity in the Orange County Sanitation District's NPDES permit, its plant had a dilution factor greater than 100:1. Therefore, there is no justification or authority for including acute toxicity in the HTP permit.*

The Bureau requests reconsideration of the proposed application of acute toxicity limits to the one-mile outfall 001, because discharges from this source generally last for an hour or less, and occur only once or twice per year. The acute toxicity protocol as required by the Tentative Permit, which is specified as a 96-hour test, will tend to overstate the impact of the effluent in the 001 discharge vicinity since the aquatic life in the ocean will be exposed to effluent constituents for a much shorter period than will the toxicity test organisms in the laboratory. As long as discharges for outfall 001 are very short term, the imposition of acute toxicity limits on the 001 outfall are unnecessary, and will result in a waste of City resources.

Acute toxicity tests are historically a technology-based monitoring tool used to standardize the measurement of the toxicity of freshwater effluent with a freshwater organism. To

combine a marine organism with a water quality-based toxicity limit seems contrary to the original intent of the acute toxicity test. Therefore, the acute toxicity testing requirements are is unnecessary.

The Ocean Plan also states that there are 3 acceptable ways to calculate an acute toxicity unit (TUa). However, the Tentative Permit requires that TUa for the 001 outfall be calculated based on hypothesis testing (control vs. 100% effluent). (See Tentative Permit at pages 37-38, footnote [19].) The utility of hypothesis testing as a means of estimating toxicity has been contested by many groups. There is an alternative formula based on percent survival in 100% effluent that can also be used to calculate TUa. If the acute toxicity requirements are not removed for the 001 outfall, then the Bureau requests that this other alternate formula using percent survival be allowed.

The Bureau has also demonstrated with past acute toxicity tests (1996-2004) that the toxicity of the HTP secondary effluent can be mitigated with the control of un-ionized ammonia. If acute toxicity limits and monitoring are maintained in the permit, then acute tests on effluent need to allow the control of un-ionized ammonia through pH adjustment or removal with zeolite. The RPA for outfall 002 has already demonstrated that ammonia did not have RP and an effluent limit for ammonia was not imposed. Outfall 001 will have an ammonia effluent limit and be fully regulated for this constituent, which obviates the need for leaving ammonia in toxicity test samples. Additionally, receiving water monitoring data shows that at no time, nor at any depth measured, for the offshore stations around the HTP outfalls did the ammonia concentration exceed the 2001 COP chronic criterion of 600 ug/L. (See Attachment 5) Therefore, ammonia should be removed from or controlled in the toxicity test samples to allow the determination of whether any other constituents might result in toxicity. Using this same regulatory approach, the San Francisco Regional Board has allowed POTWs within their region to control un-ionized ammonia when testing the toxicity of effluent.

If the acute toxicity effluent limits are not deleted from the Tentative Permit, then the acute toxicity test as specified in the Tentative Permit must be modified as stated above. If the test is not modified, then consistent compliance with the specified acute test will be difficult. If it is determined that consistent compliance with the required acute toxicity testing is unattainable, this will require the Bureau to modify its treatment process and consider the addition of new treatment facilities at HTP. Any modifications requiring new facilities would be difficult to construct within the HTP footprint due to space limitations. Even if construction of such facilities at HTP were possible, it would be extremely costly to build these facilities and may impact treatment capacity.

The Bureau requests the removal of the acute toxicity requirement from the Tentative Permit for outfalls 001 and 002 due to the lack of RP, the lack of necessity, and the lack of an analysis of the economic impacts of adding new treatment processes and newly modified monitoring requirements to the permit. The Regional Board is required to conduct economic burden analysis under California Water Code sections 13263(a), 13267(b)(1), and 13225(c) before imposing new effluent and monitoring/testing requirements in the tentative permit.

In addition, in Attachment 6 (Supplemental Comments on Toxicity Limits and Monitoring), Acute Toxicity Issue E., the Bureau commented that marine species listed in 40 CFR 136 should be included in the final permit.

Response: While the City describes their preference for a mixed framework of technology- and water quality-based approaches to controlling toxicity in ocean discharges in California prior to 2001, the updated 2001 Ocean Plan now contains a water quality objective for acute toxicity that is not comparable to historical outdated technology-based acute toxicity requirements in older versions of the Ocean Plan. EPA and the Regional Board disagree with the City's interpretation of acute toxicity provisions in the current Ocean Plan and their application to the HTP discharge.

USEPA and the Regional Board have reviewed the Ocean Plan and applicable NPDES regulations and conclude the following. Ocean Plan provisions require that the discharge of waste from Hyperion Treatment Plant shall not cause a violation of Table B water quality objectives, including the objective for acute toxicity. (See Section II.A of the Ocean Plan.) The Ocean Plan specifies that compliance with the Table B acute toxicity objective shall be determined following completion of initial dilution, at the edge of the acute mixing zone, where $Dm_{acute} = 0.1\ Dm_{chronic}$; minimum testing requirements for acute toxicity are also outlined. (See Section III.C of the Ocean Plan.) In connection, NPDES regulations at 40 CFR 122.44(d)(1)(iv) specify that WQBELs controlling toxicity are required if there is reasonable potential for a toxicity criterion to be exceeded. To this end, USEPA and the Regional Board note that the Ocean Plan does not relieve permitting authorities from 40 CFR 122.44(d)(1) requirements to: (1) evaluate the reasonable potential for ocean discharges to exceed the Table B acute toxicity objective and (2) establish WQBELs for toxicity when reasonable potential is demonstrated.

Because the chronic dilution factors ($Dm_{chronic}$) for Outfalls 001 and 002 are 13:1 and 84:1, it follows that the acute dilution factors (Dm_{acute}) for Outfalls 001 and 002 are 1.3:1 and 8.4:1, respectively. While Ocean Plan provisions specifically require chronic toxicity testing at minimum effluent dilutions below 100:1, paragraphs III.C.3.b and c of the Ocean Plan do not prohibit permitting authorities from also requiring acute toxicity testing in such NPDES permits with dilutions in this range. Similarly, in the TSD, USEPA recognizes that at effluent dilutions below 100:1, acute toxicity is less likely to occur ". . . *as the 100:1 dilution level is approached*." Consequently, the TSD recommends that a reasonable potential evaluation for acute toxicity also be conducted to determine whether excursions above the acute toxicity criterion are projected at low dilution values. To this end, the TSD notes that for acute toxicity, an interim (i.e., acute endpoint) result – when available in a chronic toxicity test – may be used to conduct this reasonable potential evaluation for acute toxicity. (See TSD Section 3.3.3, p. 58.)

The acute toxicity requirements for Outfall 001, described by the City, are no longer specified in the final permit for the reasons detailed, below. However, USEPA and the Regional Board note that the alternative formula described by the City (see definition b. of

"Acute Toxicity" in Appendix I of the Ocean Plan), as it pertains to the new Ocean Plan acute toxicity objective of 0.3 TUa, is awaiting update by the State Board.

The permittee has asked the Regional Board and USEPA to reconsider the proposed acute toxicity WQBEL and monitoring requirement at Outfall 001, primarily because this discharge generally lasts for an hour or less and occurs infrequently, only four times each year. Moreover, for this discharge, WQBELs for ammonia and total chlorine residual (both potential sources of toxicity in POTW secondary effluents), chronic toxicity, and many Table B toxic constituents are in place. Because discharge through this outfall is infrequent (for maintenance/emergency purposes only) and because low dilution chronic toxicity effluent limits and testing requirements are in place here, USEPA and the Regional Board are deleting the acute toxicity effluent limit and associated routine monitoring requirement for Outfall 001. However, consistent with TSD recommendations described above for low dilution effluent discharges, the following provision has been added to Section VI.E.(Toxicity Monitoring Requirements) of MRP of the final permit:

> *When a chronic toxicity test method that incorporates a 96-hour acute toxicity endpoint is used to monitor toxicity at the chronic IWC in effluent discharged from Outfall 001, the 96-hour acute toxicity statistical endpoint shall also be reported as LC50 and TUa along with other chronic toxicity test results required by this permit.*

Acute toxicity requirements for effluent discharged through Outfall 002 are unchanged in the final permit based on the reasonable potential evaluation presented in section XIII.B.4.a of the Tentative Permit Fact Sheet. This provision is consistent with Ocean Plan requirements that the discharge of waste from Hyperion Treatment Plant shall not cause a violation of Table B water quality objectives for acute toxicity and 40 CFR 122.44(d)(1) which requires permitting authorities to establish a WQBEL for toxicity when reasonable potential is demonstrated. Furthermore, because numeric limits for certain toxic constituents that did not show reasonable potential have been removed, this acute toxicity limit is a backstop to preventing the discharge of toxic pollutants in toxic amounts. Also, because of the nature of industrial discharges into the Hyperion sewershed, it is possible that other toxic constituents could be present in the effluent, or could have synergistic or additive effects.

In their comments on acute toxicity requirements, the permittee describes how acute toxicity in discharged secondary effluent has been maintained at the required in-stream waste concentration (IWC) by controlling unionized ammonia through pH adjustment or removal by zeolite. USEPA and the Regional Board note that the Tentative Permit already contains provisions allowing for the control of pH during toxicity testing if appropriate procedures which do not significantly alter the nature of the effluent are used. However, before this can occur, the permittee must demonstrate – using procedures specified in the permit – that the observed toxicity is due only to elevated levels of unionized ammonia resulting from increasing pH values occurring in test chambers during the acute toxicity test, and not other toxic constituents present in the discharged effluent. (See Tentative Permit, p. T-34.)

Finally, USEPA and the Regional Board agree that acute toxicity methods should be used to monitor acute WET and such methods are specified in the Tentative Permit. Also, in

accordance with TSD recommendations, the Tentative Permit is flexible, allowing use of chronic marine test methods with interim endpoints to evaluate acute toxicity. USEPA also notes that because test procedures for measuring toxicity to estuarine and marine organisms of the Pacific Ocean are not listed at 40 CFR 136, permit writers may include – under 40 CFR 122.41(j)(4) and 122.44 (i)(1)(iv) – requirements for the use of test procedures that are not specified at part 136, such as the Holmesimysis costata Acute Test and other West Coast WET methods (USEPA, 1995) on a permit-by-permit basis. (See *Guidelines Establishing Test Procedures for the Analysis of Pollutants, Whole Effluent Toxicity Test Methods, Final Rule*, Federal Register, November 19, 2002, Vol. 67, No. 223, Pages 69951-69972.) Because the permittee is not seeking the flexibility described in the draft monitoring and reporting program, the second paragraph under Section VI.E.1.a of the Tentative Permit has been deleted and replaced, as follows, at the permittee's request:

"The presence of acute toxicity shall be estimated using marine test species as specified in Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms (EPA 821-R-02-012, 2002), with preference for west coast vertebrate and invertebrate species."

Modification: Section VI.E.(Toxicity Monitoring Requirements) of MRP of the Tentative Permit has been revised as mentioned above.

13. **Comment:** *Chronic Toxicity. The Bureau requests that chronic toxicity test for the 001 outfall be deleted as unnecessary. If retained, the Bureau requests that a method be documented or the Instream Waste Concentration (IWC) be removed. Although an IWC exists (Page 30, 3.d), no method for conducting the chronic test for the 001 outfall is mentioned. The 001 outfall is permitted for emergency discharge of chlorinated secondary treated effluent during extremely high flows, power failures, and preventive maintenance. All of these discharges tend to be short-term events and the dilution and dissipation of the discharged effluent occurs quickly and presents no lasting effects to impose chronic toxicity on the organisms in the immediate area. For these reasons, the Bureau requests the requirement of chronic toxicity testing be dropped for the 001 outfall. Other concerns over the use of chronic toxicity effluent limits are explained in more detail in Attachment 6.*

The Bureau requests the removal of the chronic toxicity testing requirement from Outfall 001, which is used only in emergencies, as well as the removal of numeric chronic toxicity effluent limits.

Response: Because the Regional Board and USEPA have concluded that there is reasonable potential for discharges from Outfalls 001 and 002 to exceed the numerical chronic toxicity objective specified in Table B of the Ocean Plan (see Tables R1-1 and R2-1 of the Tentative Permit package), the numerical chronic toxicity limits and monitoring requirements proposed in the Tentative Permit are unchanged in the final permit. USEPA and the Regional Board also refer the permittee to Section VI.E.2 of the Monitoring and Reporting Program for chronic toxicity test methods applicable to chronic toxicity testing requirements for Outfalls 001 and 002. Furthermore, for evaluating chronic toxicity in short duration discharges from Outfall 001 when fresh effluent renewal samples are unavailable,

West Coast chronic marine methods without a renewal requirement are generally available for use by the permittee.

Modification: There is no change warranted in response to the comment.

14. Comment: *Toxicity Units Should Merely Be Trigger Values, Not Effluent Limits. The chronic and acute toxicity effluent limits should be converted to performance goals that trigger toxicity identification/reduction analysis when consistent toxicity is found.*

EPA's own staff have concluded that using WET methods as a single-test limit is improper and a misuse of the toxicity testing process:

> *Because the USEPA toxicity tests were intended to be early warning signals of biological community impacts, the results of a single toxicity test should not constitute a violation of a water quality standard, or of an effluent limitation. Unfortunately, misuses have occurred . . .*

See De Vlaming and Norberg-King, A Review of Single Species Toxicity Tests: Are the Tests Reliable Predictors of Aquatic Ecosystem Community Responses?, EPA/600/R-97/114 at page 2 (1999)(emphasis added). EPA's 1999 Report explains that a determination that toxicity tests predict instream impacts "must be based on a series of test results (persistent toxicity) not on a single test result." Id. at page 23 (emphasis added). The 1999 Report further states that "[t]his potential … high rate of 'false positives' is disturbing and confirms that the result of a single toxicity test should not be used to characterize wastewater or ambient water toxicity. Id. at 8; see also Attachment 6. The Society of Environmental Toxicology and Chemistry ("SETAC"), the leading experts on toxicity has confirmed this position. See D. Grothe, et al (eds.), Whole Effluent Toxicity Testing at pages 182, 188-189 (1996).

For these reasons, the Bureau requests that the chronic and acute toxicity effluent limits be converted to performance goals.

Response: Regarding the permittee's comments on the expression of toxicity effluent limits, federal requirements related to such limits, and the request for trigger values, USEPA and the Regional Board emphasize that the Clean Water Act (CWA), NPDES regulations, EPA's TSD, and the Ocean Plan all clearly envision that effluent limits should be expressed numerically. (See CWA 301(b)(1)(C) and 502(11); 40 CFR 122.44(d)(1)(iv) and (k) and 122.2; the TSD; and Ocean Plan Chapters II and III.) The toxicity effluent limits contained in the final permit are feasible to calculate and wholely and unambiguously consistent with these requirements.

Also, while the permittee has noted that De Vlaming and Norberg-King (1999, p. 2) have speculated that, ". . . the results of a single toxicity test should not constitute a violation . . . of an effluent limitation.", EPA has concluded that such line of thought is not in alignment with CWA requirements and NPDES regulations for reasons outlined in the following paragraphs. That said, De Vlaming and Norberg-King (1999, p. iii and 26) have concluded

that: (1) a preponderance of evidence reveals that laboratory single species toxicity test results are reliable qualitative predictors of aquatic ecosystem community impacts; and (2) the predictive power of single species tests is enhanced when exposure patterns are properly accounted for, higher magnitude toxicity exists, or toxicity is measured in-stream rather than in an effluent. Because the Ocean Plan specifies a protective critical exposure pattern that must be achieved in the discharged effluent, aquatic ecosystem community impacts resulting from toxicity should be minimized.

While the permittee contends that WET tests are inherently unreliable and inaccurate, the U.S. Court of Appeals recently rejected arguments that the variability observed in WET test methods (i.e., method variability) is excessive, concluding ". . . EPA has demonstrated that it is not." (See *Edison Electric Institute, et al., v. Environmental Protection Agency, et al*., 391 F. 3d 1267, 1272 (D.C. Cir. 2004).) In this case, the Court determined that EPA had "gone far enough" to minimize the effect of organic idiosyncrasy (the use of living specimens) by taking experimental and statistical precautions in designing and refining the WET test methods, denying the petitioners' complaint that EPA had not gone far enough to minimize the potential for variability between and within tests. (See *Edison Electric Institute* at 1269.)

Here also, EPA wishes to clarify that its August 15, 1995 national policy memo regarding WET enforcement specifies that the initial enforcement response to a single exceedance of a WET limit, *causing no known harm*, should not be a formal enforcement action with a civil penalty, but that any violation of a WET limit is of concern and should receive an immediate, professional review by the regulatory authority. In this manner, De Vlaming and Norberg-King are not consistent with EPA enforcement policy. EPA's recommended response to an isolated or infrequent violation of a WET limit, causing no known harm, is issuance of a letter of violation or Administrative Order which does not include a penalty. EPA policy suggests that additional testing is an appropriate initial response to a single WET limit exceedance with an escalated enforcement response to repeated violations. The Tentative Permit incorporates toxicity effluent limits and conditions (accelerated testing and TREs) that are consistent with the applicable requirements and recommendations described above.

Modification: There is no change warranted in response to the comment.

Mass-Based Limits

15. Comment: *The Bureau appreciates the removal of the kg/day requirements found in the previous permit and notes that the Tentative Permit and Fact Sheet correctly state that "40 C.F.R. §122.45(f)(1) requires that except under certain circumstances, all permit limits, standards, or prohibitions be expressed in terms of mass units."*

However, the Tentative Permit and Fact Sheet ignore that one of the exceptions to this general rule is "when the applicable standards and limitations are expressed in terms of other units of measurement" (e.g., concentration). See 40 C.F.R. §122.45(f)(1)(ii). Notwithstanding the fact that the standards all of the constituents are expressed as concentration, the permit includes more than just concentration limits. Further, where the

Ocean Plan includes effluent limits, these are also expressed as concentrations only (See e.g., California Ocean Plan at page 11, Table A Effluent Limitations), yet the Tentative Permit also includes mass limits for these constituents.

The Tentative Permit justifies the mass limits in addition to the concentration limits based on the alleged finding that "mass-based limits ensure that proper treatment, and not dilution, is employed to comply with the final effluent concentration limitations." However, the Fact Sheet does not contain any evidence that the Bureau is not using proper treatment, or is diluting or would be capable of diluting its large effluent flows. Thus, the additional mass limits imposed in non-storm events are not necessary, appear punitive without reason, and should be removed. Imposing mass limits during dry weather, when the Bureau is treating diverted urban runoff, may cause compliance problems for the treatment plant that is trying to treat these additional and potentially pollutant-laden runoff flows without receiving any credit for this action.

Additionally, the mass-based limits are incorrectly calculated based on a 420 million gallons per day (mgd) plant flow. These mass based limits, if maintained in the Tentative Permit, should be based on the plant's current total design capacity of 450 mgd. See 40 C.F.R. §122.45(d)(1). By using the lower flow value of 420 mgd, the plant will not be allowed to use its full capacity and plans for diverting and treating dry-weather flows from storm drains could be impacted.

The Bureau requests deletion of the mass limits since no evidence is offered that the Bureau is not using proper treatment or employing dilution to comply with concentration based effluent limits. If mass limits are not deleted, then a provision should be added to the Tentative Permit providing a credit for the treatment of diverted urban runoff flow. Either of these actions would assist the Bureau in achieving consistent compliance and reward the Bureau for treating these nuisance flows. Additionally, if mass-based limits are not deleted from the Tentative Permit, these limits are required to be based on the full HTP design capacity of 450 mgd.

Response: The inclusion of concentration limits does not preclude the inclusion of mass limits. 40 CFR section 122.45(f)(1)(ii) does not act as a bar to imposing both limits, but expresses a preference for mass limits. Further, 40 CFR section 122.45(f)(2) explicitly states that "[p]ollutants limited in terms of mass additionally may be limited in terms of other units of measurement, and the permit shall require the permittee to comply with both limitations." In addition, Section J on Page 14 of California Ocean Plan states that "[d]ischarge requirements shall also specify effluent limitations in terms of mass emission rate limits." Therefore, to ensure that the Hyperion Treatment Plant always provides proper treatment and there is no potential of diluting effluent before discharge, we believe that it is appropriate to include both concentration and mass effluent limits in the Tentative Permit.

40 C.F.R. §122.45(d)(1) does not indicate that the calculated mass limit should be based on the design plant capacity. The Hyperion Treatment Plant discharges to Santa Monica Bay, which is one of the most heavily used recreational areas in California. Recognizing the importance of the Bay as a national resource and considering both State and the federal

Antidegradation Policies, we calculated the mass effluent limit based on the previously flow rate of 420 mgd in the existing permit. We understand that the Hyperion Treatment Plant will treat diverted urban runoff that may be potentially heavily polluted. Since the estimate of this diversion is approximately 11 mgd (as reported by the City during the October 28, 2004 meeting), we believe that the impact from the treatment of this diversion on the effluent will not be significant. The Tentative Permit provides a reopener that allows the City to request the modification of mass emission rates based on the current design capacity of 450 mgd, if the City conducts an Antidegradation Analysis to demonstrate that the change is warranted.

Modification: There is no change warranted in response to the comment.

Mass Emission Benchmarks and Caps

16. Comment: *Mass Emission Benchmarks. Although these benchmarks are "not enforceable" as stated in the Tentative Permit, they may be "re-evaluated and revised during the five-year permit term." These benchmarks are not necessary. The plant already monitors for these constituents. The Bureau's major concern with these benchmarks is that they are being included in the Tentative Permit and have the potential to be used for some type of "re-evaluation," which is not detailed in the permit. The greater concern is that if these have the potential to become mass caps, they are also based on a projected discharge of 400 mgd, which is incorrect. Even if these benchmarks are not enforceable limits, they need to be based on the plant's full design capacity of 450 mgd. Basing these benchmarks on the design capacity will also lead to more realistic interpretation of the values over the next five years.*

The Bureau requests that the Mass Emission Benchmarks be removed from the Tentative Permit or, at the very least, be based on the HTP full design capacity of 450 mgd.

Response: Mass Emission Benchmarks are considered as performance goals that are used to reflect "actual end-of-permit performance" of the treatment plant. They are not enforceable and will not become enforceable mass emission limits. Since the current plant flow rate at the Hyperion Treatment Plant is approximately 340 mgd, mass emissions based on the design flow rate of 450 mgd tend to be over-estimated. Therefore, a projected end-of-permit flow of 400 mgd is used to calculate Mass Emission Benchmarks. The same approach has been recently applied in the Orange County Sanitation District's permit.

Modification: There is no change warranted in response to the comment.

17. Comment: *Mass Emission Caps. The mass emission caps for copper, zinc, lead, and silver are unnecessary as there is no finding of reasonable potential for any of these constituents, except perhaps copper from outfall 001, and the Santa Monica Bay is not on the 303(d) List for these metals. These caps are the result of the Santa Monica Bay Restoration Project in which these four metals were found to be the result of air deposition. It is unreasonable that caps are applied to the treatment plant when controls are not being applied to the air deposition of these metals. Furthermore, these caps are calculated based*

on 1995 average flows instead of plant design flows, and are rounded down (except for silver). Both of these actions make the mass caps artificially and unnecessarily low. Additionally, the Tentative Permit provides no clear description as to how these caps will be used.

In addition, the Los Angeles Department of Water and Power is planning to add zinc orthophosphate to the water system in an effort to reduce copper and lead levels in drinking water to comply with Environmental Protection Agency/California Department of Health Services Lead and Copper Rule requirements. The planned addition of this chemical will be at the rate of 1000 µg/l for just over half of the Hyperion Treatment Plant service area, which could work out to an increase in plant zinc loading of 600 µg/l. This addition will likely decrease copper and lead levels in Hyperion's effluent discharged to the Santa Monica Bay. However, future effluent zinc discharges will likely be higher than 1995 levels. Holding the Bureau to 1995 mass loading levels is unreasonable and unnecessary where no RPA exists and where the Santa Monica Bay is not listed on the 303(d) List for metals, and prevents the City from complying with Lead and Copper Rule requirements.

The Bureau requests that these mass emission caps be removed for the lack of RP and because the Santa Monica Bay is not 303(d) listed for metals. If retained, then the mass caps must be based on the HTP's full design capacity of 450 mgd.

Response: As recommended in the Santa Monica Bay Restoration Plan, emission caps for these four metals (copper, lead, silver and zinc) were set at the 1995 loading level. To reflect the 1995 loading level, the calculation should be based on the 1995 average flow and concentration. Although the result of the current study showed that aerial deposition is a significant contributor for trace metals, such as lead, chromium, and zinc, to Santa Monica Bay, we believe that this conclusion should not affect the emission caps for these four metals contributed by the Hyperion effluent because they are from two different sources.

The emission caps have been incorporated into Mass Emission Benchmarks that are considered as performance goals. Therefore, they are not enforceable and may be modified by the Executive Officer and USEPA if the City requests and can demonstrate that the change is warranted. If the Los Angeles Department of Water and Power implementes the addition of zinc orthophosphate to the water system, the City may request to modify performance goals for zinc if monitoring data consistently show exceedance of zinc performance goals over a period of time.

Modification: There is no change warranted in response to the comment.

Monitoring and Reporting Program

18. Comment: Nearshore, Inshore, and Kelp Bed Monitoring. *Item D of the Monitoring and Reporting Program states "Data collected at nearshore and inshore monitoring stations has shown no exceedances of the past or current Ocean Plan standards." A comparison of historical nearshore/inshore data indicates that concentrations of indicator bacteria above the current (2004) Ocean Plan limits at selected sites were infrequent. There are over 25*

years of data showing that the HTP effluent plume has never been detected less than 2.5 km from shore. Therefore, the inshore stations are not impacted by the Hyperion outfall discharge and any exceedance of the single-sample bacteriological limit is most likely the result of a source unrelated to Hyperion's effluent. For this reason, the inshore monitoring program does not belong in the Hyperion permit.

In addition, the Santa Monica Bay Bacterial TMDL compliance sites are located at ankle-depth at point zero of a flowing drain or mid-point of an open beach, not offshore. It has been proven that this monitoring is not necessary and the Bureau requests removal of this requirement from the Tentative Permit

Response: USEPA and Regional Board staff agree that past monitoring data suggests that the Hyperion Outfall discharge should not reach the shoreline. We also agree that routine inshore monitoring will not be required to determine compliance with the Santa Monica Bay Bacteria TMDL Waste Load Allocations (shoreline monitoring required by the Municipal Stormwater permit will cover this). However, we believe that a minimal level of monitoring should be retained to verify that the outfall discharge is not reaching the shore. Therefore, we have revised the inshore bacteriological monitoring program by limiting the monitoring to the summer quarterly sampling period, when beach usage would be highest and concern about the plume onlapping the shore would be the greatest.

Modification: The monitoring and reporting program has been modified as follows:

A. Inshore Water Quality Monitoring

1. This survey addresses the compliance question~~s~~: "Are Ocean Plan and Basin Plan limits for bacteria being met?" ~~and "Are WLAs in the Santa Monica Bay Beaches Bacteria TMDLs being met?"~~ Data collected provide the information necessary to demonstrate compliance with the ~~WLAs in the Santa Monica Bay Beaches Bacteria TMDLs and underlying~~ water quality standards. Parameters to be monitored include:

Parameter	Units	Type of Sample	Sample Frequency
Fecal coliform (or *E. coli*)	CFU/100 ml (or MPN/100 ml)	discrete sampling at the surface and at midwater	Annually[1] (summer) ~~5 times/month[1]~~
Total coliform	CFU/100 ml (or MPN/100 ml)	discrete sampling at the surface and at midwater	Annually[1] (summer) ~~5 times/month[1]~~
Enterococcus	CFU/100 ml (or MPN/100 ml)	discrete sampling at the surface and at midwater	Annually[1] (summer) ~~5 times/month[1]~~

[1] The annual ~~S~~samples~~s~~ shall be taken ~~at least once per week~~ in the summer quarter.

19. Comment: *Item R of the Monitoring and Reporting Program also contains a requirement for Kelp Bed monitoring. As stated in the Tentative Permit, the Hyperion wastewater plume does not extend to kelp areas in Santa Monica Bay, the plume occurs predominantly within 2 km of the outfall and shoals 2.5 km from shore. Kelp beds exist 20 km from outfall 002 and are located above the shoaling depth of the plume. This monitoring requirement should be removed from the Hyperion NPDES permit.*

Response: The Santa Monica Bay Restoration Project (which is now the Santa Monica Bay Restoration Commission) developed a Comprehensive Monitoring Framework in 1993 to redefine the purposes of monitoring away from individual agency mandates towards a more holistic approach to data collection. The City of Los Angeles participated in this effort and we assume that the City is supportive of the Project/Commission's recommendations. To implement this regional monitoring framework, the Project/Commission recommended several changes to existing discharger monitoring programs in Santa Monica Bay. These changes included: 1) reducing monitoring where impacts have been well documented and are trending downward or where discharge quality has been greatly improved; 2) restructuring or increasing monitoring of seafood tissue, the open ocean ecosystem, kelp beds, rocky intertidal communities, resident fish populations, wetlands, and storm water (inland and coastal plumes); and 3) using the savings from scaled-back monitoring efforts to create a regional funding pool to pay for increased monitoring. The requirement for the City to participate in the Central Region Kelp Monitoring Program is consistent with these recommendations.

Modification: No monitoring and reporting program provisions are changed in response to this comment.

20. Comment: *Regional Activities Monitoring Requirements. Section K.2. in the Monitoring Requirements requires the City to participate in regional activities coordinated by the Southern California Coastal Water Research Project (SCCWRP). The Bureau requests this exclusivity clause be removed from the Tentative Permit, as some programs may be better served by working through alternate organizations for purposes of conducting regional monitoring. By recognizing that water quality programs are inherently different, regional monitoring programs may be better served by participating in the on-going Central Bight Water Quality Cooperative Group, in lieu of annual studies over a five-year period. Because oceanographic conditions are highly variable and unpredictable, needing longer time-spans to characterize the situations, capturing rain events, or understanding other specific phenomena will be better served by an on-going effort. Resulting data will provide more pertinent information for use in the five-year regional surveys. Total time commitment will equal that provided in the previous regional surveys.*

The Bureau requests the wording in first sentence of 2nd paragraph of Section K.2. be changed as follows:

"The Discharger shall participate in regional activities coordinated by the SCCWRP or by any other appropriate agency approved by the Regional Board and USEPA."

Response: USEPA and Regional Board staff agree that there is no need to limit regional monitoring efforts to those coordinated by SCCWRP.

Modification: The monitoring and reporting program has been modified as follows:

2. Regional monitoring is focused on questions that are best answered by a region-wide approach that incorporates coordinated survey design and sampling techniques. The major objective of regional monitoring is to collect information required to assess how safe it is to swim in the ocean, how safe it is to eat seafood from the ocean, and whether the marine ecosystem is being protected. Key components of regional monitoring include elements to address pollutant mass emission estimations, public health concerns, monitoring of trends in natural resources, assessment of regional impacts from all contaminant sources, and protection of beneficial uses. The final design of regional monitoring programs is developed by means of steering committees and technical committees comprised of participating agencies and organizations, and is not specified in this permit. Instead, for each regional component, the degree and nature of participation of the Discharger is specified. For this permit, these levels of effort are based upon past participation of the City of Los Angeles in regional monitoring programs.

   The Discharger shall participate in regional monitoring activities coordinated by the SCCWRP or any other appropriate agency approved by the Regional Board and USEPA. The procedures and time lines for the Regional Board and USEPA approval shall be the same as detailed for special studies, below.

21. Comment: *Santa Monica Bay Monitoring Consortium. The Tentative Hyperion Permit requires the Bureau to establish and participate in the "Santa Monica Bay Monitoring Consortium". The Tentative Permit requires the Bureau to contribute towards implementation of those monitoring requirements that are applicable to its discharge by the summer of 2005. The Bureau requests removal of this requirement unless it can be scientifically shown that the Hyperion outfall impacts a specific area of concern. The Bureau may consider participating in relevant portions of this program on a voluntary basis to demonstrate its commitment to the environment. But in any case, this requirement does not belong in the Hyperion NPDES permit.*

The Bureau requests that the removal of the provision requiring participation in the Santa Monica Bay Monitoring Consortium from the Tentative Permit.

Response: In 1989, the National Research Council conducted a review of marine environmental monitoring programs in the Southern California Bight and found that $17

million was spent annually on marine monitoring, yet it still was not possible to provide an integrated assessment of the status of the Southern California coastal marine environment. Most monitoring was associated with NPDES permit requirements and directed towards addressing questions about site-specific sources. Despite providing valuable information, most monitoring in the Bight was restricted to an area covering less than 5% of the Bight, making it difficult to draw conclusions about the Bight as a whole. This limited spatial extent of monitoring also was found to limit the quality of local-scale assessments, since the boundaries of most monitoring programs did not match the spatial and temporal boundaries of the important physical and biological processes in the Bight.

In 1993, the Santa Monica Bay Restoration Project (now the Santa Monica Bay Restoration Commission) developed a framework for a Comprehensive Santa Monica Bay and Watershed Monitoring Program. Monitoring is the primary tool for evaluating the effectiveness of actions taken to restore Santa Monica Bay, including reducing sources of pollution; reducing impacts on humans, marine life and habitats, and the ecosystem as a whole; and restoring, rehabilitating, and protecting habitats, living resources and biodiversity. Despite extensive monitoring of Santa Monica Bay for decades, the existing monitoring system, which is primarily organized around responses to point sources, does not provide sufficient insights into regional, cumulative, subtle, and/or long-term impacts in an integrated, comprehensive, and cost-effective manner.

The USEPA and the Regional Board have recognized these problems and therefore have modified NPDES compliance monitoring programs over the past several years to include a regional monitoring program. Many major NPDES dischargers, including the City of Los Angeles, also have recognized the need for regional monitoring and have played a crucial role in the success of the 1994, 1998 and 2003 Southern California Bight Comprehensive Monitoring Programs.

Although the Southern California Bight regional monitoring programs address many of the monitoring priorities identified in the Santa Monica Bay Restoration Project's framework for a comprehensive monitoring program for the bay, several monitoring components of critical concern within Santa Monica Bay are not included (e.g., kelp, rocky intertidal, wetlands, birds, mammals). These components will not be addressed until management goals and objectives have been established, suitable monitoring indicators have been selected, detailed study designs have been outlined, and funding sources have been identified.

Regional Board staff participated in development of the Central Region Kelp Monitoring Program. This effort was led by the Los Angeles County Sanitation Districts and led to an agreement by several major dischargers to fund this important monitoring component of the Santa Monica Bay Restoration Project. Regional Board staff believed that this approach would work well for development of the remaining unaddressed monitoring components, hence the requirement for the City of Los Angeles to establish and lead a Santa Monica Bay Monitoring Consortium to accomplish this task.

However, the City of Los Angeles and Los Angeles County Sanitation Districts have expressed an unwillingness to undertake this task. Therefore, USEPA and the Regional

Board have consulted with the Santa Monica Bay Restoration Commission and determined that its Technical Advisory Committee is willing to develop detailed study designs for the various monitoring components needed to complete the comprehensive monitoring program for Santa Monica Bay. Upon completion of this task, USEPA and the Regional Board will develop an implementation plan to fund these new monitoring program components. We anticipate that funding will be provided through a combination of NPDES discharger participation and linkages to non-regulatory monitoring programs by resource agencies, universities and other organizations.

Modification: The monitoring and reporting program has been modified as follows:

L. The conceptual framework for the SMBRP Comprehensive Monitoring Program was designed to be implemented in part through modifications to existing receiving water monitoring programs for major NPDES dischargers into coastal ocean waters. Some elements of this monitoring program already have been implemented, for example through establishment of periodic bight-wide regional monitoring surveys (Southern California Bight Pilot Project'94, Bight'98 and Bight'03) and annual kelp bed monitoring. However, other elements of the program have yet to be developed, including:

-rocky intertidal monitoring
-resident fish monitoring
-pelagic ecosystem monitoring
-wetlands monitoring
-hard bottom benthos monitoring
-bird and mammal monitoring
-commercial shellfish monitoring
-stormwater mass emission loading and plume tracking monitoring.

~~The City of Los Angeles (Hyperion Treatment Plant) hereby is required to help establish and participate in the Santa Monica Bay Monitoring Consortium as a condition of this permit. The goal of this Monitoring Consortium will be to oversee development and implementation of the regional monitoring surveys required to complete the SMBRP Comprehensive Monitoring Program. The Monitoring Consortium shall be comprised of representatives from coastal and inland dischargers, as well as other interested parties. It is expected that each discharger will contribute only towards implementation of those monitoring components that are applicable to their discharge. The goal is to implement these surveys by the summer of 2005.~~

~~The City of Los Angeles shall be responsible for developing a workplan, in conjunction with other consortium participants and interested stakeholders, outlining the monitoring surveys proposed to complete the SMBRP Comprehensive Monitoring Program. This workplan shall be submitted by March 31, 2005, for approval by the Executive Officer. The Monitoring Consortium also shall develop a funding mechanism to implement the recommended monitoring surveys. It is~~

~~anticipated that funding will be supplied through financial contributions provided by NPDES dischargers. An effort will be made to offset these costs through reductions in existing monitoring requirements, if possible.~~

The Santa Monica Bay Restoration Commission's Technical Advisory Committee has agreed to develop a detailed workplan outlining the monitoring surveys required to complete implementation of the Comprehensive Monitoring Program framework developed in 1993. This workplan should include formulation of management goals and objectives, identification of suitable monitoring indicators, detailed sampling designs, and cost estimates for each monitoring component. Upon completion of this workplan, USEPA and the Regional Board will develop an implementation plan to fund this program. It is anticipated that funding will be supplied through a combination of modifications, including redirection of existing effort and/or imposition of new requirements, to the Monitoring and Reporting Programs of the City of Los Angeles' Hyperion Treatment Plant and other NPDES dischargers into Santa Monica Bay and linkages to existing programs performed by other agencies or interested parties.

22. Comment: *Special Studies. The requirements for the special studies as detailed in section K.3 of the Monitoring and Reporting Program are too cumbersome to implement and dilutes the ad hoc nature of this provision. The Bureau requests that the Regional Board streamline this provision by deleting the requirement for a formal approval of the workplan at a Regional Board hearing. The study should be developed and formulated at the staff level and once formulated, require only the approval of the Regional Board's Executive Officer and USEPA prior to implementing the study.*

The Bureau requests that the Regional Board delete the requirement to prepare detailed scopes of work for approval at a later Regional Board hearing and only require the approval of the Executive Officer and USEPA prior to proceeding with a special study or studies.

Response: The intent of section K.3 is to establish an annual planning process to discuss the need for special studies, not necessarily to require a special study each year. In consultation with USEPA and the Regional Board, the City may propose one or more special studies or no special studies for the following year; the City also may propose multi-year special studies, if appropriate. However, USEPA and Regional Board staff believe that it is essential to discuss the proposed special studies at a Regional Board hearing to allow public participation and input into the design of such studies.

Since the SCCWRP Commission's Technical Advisory Group, which includes representatives from the City, USEPA and the Los Angeles Regional Board, has decided to discuss special studies each year at its November quarterly meeting, we are changing the date for annual submittal of the City's proposal from September 30th to December 30th.

Modification: The monitoring and reporting program has been modified as follows:

3. Special studies are focused on refined questions regarding specific effects or development of monitoring techniques and are anticipated to be of short duration and/or small scale, although multiyear studies also may be needed. Questions regarding effluent or receiving water quality, discharge impacts, ocean processes in the area of the discharge, or development of techniques for monitoring the same, arising out of the results of core or regional monitoring, may be pursued through special studies. These studies are by nature ad hoc and cannot be typically anticipated in advance of the five-year permit cycle.

   The ~~scope of each special study shall be determined by the~~ Discharger, ~~in coordination with~~ the Regional Board and USEPA shall consult annually to determine the need for special studies. Each year, the Discharger shall submit proposals for *any proposed* special studies to the Regional Board and USEPA by ~~September~~ December 30, for the following year's monitoring effort (July through June). The following year, detailed scopes of work for proposals, including reporting schedules, shall be presented by the Discharger at a Spring Regional Board meeting, to obtain the Regional Board and USEPA approval and to inform the public. Upon approval by the Regional Board and USEPA, the Discharger shall implement its special study or studies.

23. Comment: *Monitoring Frequency. The Bureau has been monitoring for the constituents in the permit for a decade or more. Many of these constituents are not detected or have never been detected. The cost to continue to monitor these non-detectable constituents is not insignificant and other dischargers have semi-annual, annual, or longer term frequencies (e.g., once in the five year permit term). (See also Attachment 1 at comments 127 and 128). If detected, then more frequent monitoring (e.g., a return to quarterly or monthly) could be required. The State Board, in recognizing that permittees around the state are now paying a surcharge for monitoring, has provided guidance to the Regional Boards to consider easing the monitoring burdens for permittees in ways such as is set forth in this request.*

Pursuant to Water Code sections 13267(b) and 13225(c), the Bureau requests that the Regional Board consider longer-term frequencies for routine monitoring.

Response: The 2001 California Ocean Plan states that discharges greater than 10 mgd shall be required to monitor at least semiannually. Considering the large volume of discharge (approximately 340 mgd) from the Hyperion Treatment Plant, we believe that the proposed monitoring frequencies (quarterly for most of toxic constituents) in the Tentative Permit are necessary and reasonable. Since metals are consistently detected in the effluent, we retain the monthly monitoring frequency as in the existing permit. However, after reviewing the available radionuclide monitoring data showing very low detected levels,

we believe that the monthly analyses of additional radiochemicals (radium-226 & radium-228, tritium, strontium-90 and uranium) are not necessary. These analyses will not be required unless the monthly analyses for gross alpha or beta exceed their respective standards. This procedure is consistent with other NPDES permits issued by the Regional Board.

Modification: The following will be added to the footnote [4] of Influent and Effluent Monitoring Program for Radioactivity in the MRP.

[4] Analysis for combined Radium-226 & 228 shall be conducted only if gross alpha results for the same sample exceed 15 pCi/L or beta greater than 50 pCi/L. If Radium-226 & 228 exceeds the stipulated criteria, analyze for Tritium, Strontium-90 and uranium.

Pretreatment Programs

24. Comment: *Pretreatment Local Limits for the Hyperion Service Area and FOG Program. The Bureau has several concerns with Section III. B of the Tentative Permit as written. The Bureau is not able to develop protective pretreatment local limits for upstream plants (LAGWRP DCTWRP, and Burbank WRP) in the absence of updated NPDES Permits for these plants. Local limits developed based on Hyperion NPDES Permit will only be protective of Hyperion. Additionally, the City of Burbank is responsible for developing local limits to protect the Burbank WRP. And finally, the Bureau is not aware of a methodology to calculate or develop numerical local limits for Oil and Grease based on treatment plant effluent limits that will ensure a reduction or elimination of sanitary sewer overflows. The 2001 Draft Guidance on local limits states, "Local limits on FOG may not be appropriate for some POTWs because the sources of FOG are often non-SIUs and so are not necessarily included in the POTW's pretreatment program. The use of controls other than numerical limitations may be a more appropriate way to address the problem of FOG." The Bureau concurs with this assessment, and has a comprehensive program to reduce FOG-related SSOs through the permitting and regulating of Food Service Establishments including the installation of grease removal devices, sewer maintenance, and public outreach.*

The Bureau requests that Paragraph B requiring re-evaluation of pretreatment limits be delayed until new NPDES permits are issued to Tillman and LAG WRPs. Additionally, the Bureau requests deletion of the requirement to develop numerical local limits for oil and grease.

Response: USEPA and Regional Board staff believe it is necessary for the City to re-evaluate the local limits for the entire system to ensure against pass through and interference at Tillman and LAG WRPs, as well as HTP. Establishing one set of local limits for the entire service area based solely on the requirements for HTP may not be sufficiently protective for the inland plants. However, since HTP is the main POTW receiving most of the flow, including sludge for processing, and due to complexities of the system and numerous changes that took place in the sewer network during the years of operation, it is imperative that the process of updating the local limits be started immediately, without

delay. The City should present a plan of action for re-evaluating the local limits, which includes a strategy, methodology, monitoring options and many other tasks, including adequate milestones. Many of the Pollutants of Concern (POCs) that may threaten to cause pass-through or interference are already known. While the City may rely on existing permit controls for this analysis, the City can also perform analyses of current effluent quality data for the inland plants, using applicable State permit implementation procedures for protecting water quality, and determine the POCs ahead of the reissuance of the NPDES permits for these POTWs. The plan and timeline for re-evaluating the local limits must be submitted to the Regional Board for review and approval, as specified in the final permit.

Regarding oil and grease controls, USEPA and Regional Board staff believe that the City should develop local limits for preventing collection system spills caused or aggravated by oil and grease from food service facilities. Such local limits should be in the form of control measures that include the installation and maintenance of grease interceptors and traps, best management practices (BMPs), and education programs, etc.

Lack of adequate local limits shall not be a defense against liability for violations of effluent limitations and overflow prevention requirements contained in this Order.

Modification: USEPA and Regional Board staff believe that the local limits re-evaluation requirement should remain unchanged. Therefore, there are no changes warranted in response to the comment.

25. Comment: *The Permit Extends the City's Jurisdiction over Pretreatment Programs Outside the City's Jurisdiction. The Tentative Permit requires the Bureau to implement a pretreatment program throughout the Hyperion service area, including contributing jurisdictions. The issue of the City exercising jurisdiction and control over pretreatment programs located outside the political boundaries of the City of Los Angeles has been discussed on numerous occasions with the legal representatives of U.S. EPA Region IX. Specifically, U.S. EPA Region IX counsel has discussed this issue with representatives of the City of Los Angeles and both sides have recognized that the City may not be able to exercise extra-territorial jurisdiction within the boundaries of its contract cities because of existing state law. There is no provision within the Constitution of the State of California that allows a Charter city with co-equal powers to override the authority of another Charter city.*

The Bureau requests the second paragraph of the Finding 38 be changed as follows:
"This Order and permit include the City's approved Pretreatment Program and require the City to continue implementation of the Program throughout the Hyperion Treatment Plant's service area~~, including contributing jurisdictions~~."

Response: Contrary to the City's claim, the Permit does not extend the POTW's jurisdiction; the CWA and the General Pretreatment Regulations mandate that the POTW must have control authority in the entire service area. Specifically, 40 CFR 403.8(f)(1) states: *The POTW shall operate pursuant to legal authority enforceable in Federal, State or local courts, which authorizes or enables the POTW to apply and to enforce the*

requirements of sections 307 (b) and (c), and 402(b)(8) of the Act and any regulations implementing those sections. Such authority may be contained in a statute, ordinance, or series of contracts or joint powers agreements which the POTW is authorized to enact, enter into or implement, and which are authorized by State law.

It appears there is some confusion between the POTW's responsibility, as Control Authority, to exercise its control over the entire area contributing to the HTP (hence the term "Control Authority"), and the means to achieve that control ability. A POTW is ultimately responsible for implementation and enforcement of pretreatment standards throughout its service area, including areas outside its "territorial" jurisdiction.

Contrary to POTW's claim that the City may not be able to exercise its control because of existing state law, the Office of the Chief Counsel has concluded that Sections 54739 and 54740 of the California Government Code give POTWs sufficient "extra-territorial" authority to satisfy this requirement (Attwater Memorandum, William R. Attwater, Chief Counsel, SWRCB, 01/20/1987).

In addition, Section §13362 (Inspections), of the Porter-Cologne Water Quality Control Act, provides that: *(a) A publicly owned treatment works (POTW) with an approved pretreatment program may conduct inspections in accordance with the provisions of Sections 403.8(f)(1)(v) and 403.8(f)(2)(v) of Title 40 of the Code of Federal Regulations and assess and collect civil penalties and civil administrative penalties in accordance with Sections 54740, 54740.5, and 54740.6 of the Government Code, with regard to <u>all dischargers of industrial waste to the POTW</u>* (underline added).

There is no impediment for the POTW to enter into adequate contracts or other legal mechanisms, or inter-jurisdictional agreements that will assure its ability as Control Authority to exercise its authority role as required by federal and state law.

An inter-jurisdictional agreement may require that: (a) the approved POTW Pretreatment Program performs all pretreatment duties in the contributing service area; (b) the contributing jurisdiction performs all of the POTW Pretreatment Program functions for the Control Authority, or; (c) each party performs a portion of the Pretreatment Program activities. In all cases, the Control Authority is the responsible entity to the Approval Authority for pretreatment implementation and enforcement. Where the Control Authority delegates Pretreatment Program functions to a contributing jurisdiction, through a written inter-jurisdictional agreement, the Control Authority must ensure that the contributing jurisdiction has a legal authority equivalent to its own approved Pretreatment Program for those delegated functions.

An inter-jurisdictional agreement, shall contain the following conditions:

(1). A requirement for the contributing municipality to adopt a sewer use ordinance which is at least as stringent as this ordinance and local limits which are at least as stringent as those set out in Section 2.4 of this ordinance. The requirement shall specify that

such ordinance and limits must be revised as necessary to reflect changes made to POTW's ordinance or local limits;

(2). A requirement for the contributing municipality to submit a revised user inventory on at least an annual basis;

(3). A provision specifying which pretreatment implementation activities, including wastewater discharge permit issuance, inspection and sampling, and enforcement, will be conducted by the contributing municipality; which of these activities will be conducted by POTW; and which of these activities will be conducted jointly by the contributing municipality and POTW;

(4). A requirement for the contributing municipality to provide the POTW with access to all information that the contributing municipality obtains as part of its pretreatment activities;

(5). Limits on the nature, quality, and volume of the contributing municipality's wastewater at the point where it discharges to the POTW;

(6). Requirements for monitoring the contributing municipality's discharge;

(7). A provision ensuring the POTW access to the facilities of users located within the contributing municipality's jurisdictional boundaries for the purpose of inspection, sampling, and any other duties deemed necessary by; and

(8). A provision specifying remedies available for breach of the terms of the inter-jurisdictional agreement.

When the contributing municipality has primary responsibility for permitting, compliance monitoring, or enforcement, the inter-jurisdictional agreement should specify that the municipality (in which the POTW is located) has the right to take legal action to ensure the terms of the contributing municipality's ordinance or to impose and enforce pretreatment standards and requirements directly against noncompliant dischargers in the event the contributing jurisdiction is unable or unwilling to take such action.

Modification: Therefore, USEPA and Regional Board staff have modified the second paragraph of Finding 38 of the Tentative Permit, for clarification, as follows:

This Order and permit include the City's approved Pretreatment Program and require the City to continue implementation and control of the Program throughout the Hyperion Treatment Plant's service area, including contributing jurisdictions. The POTW, as Control Authority, may exercise its authority over the entire service area directly, as provided by state law, or may elect to enter into contracts or other multi-jurisdictional agreements with the contributing jurisdictions. In case the POTW elects to enter into inter-jurisdictional agreements, the POTW must ensure that discharges received from entities outside of its

political boundaries are regulated to the same extent, as are the discharges from within its political boundaries.

26. Comment: *Annual Reporting Requirements. The Tentative Permit requires submittal of a summary in the Annual Report relative to public participation in the City's pretreatment program. The Bureau requests that the summary of public participation be included in the Semi- Annual Report, which is a copy of the newspaper notice required under 40 C.F.R. § 403.8(f)(2)(vii). In accordance with 40 C.F.R. Part 403 Pretreatment Regulations, Section 403.12(e)(1) requires that any industrial user submit to the Control Authority during the months of June and December, unless required more frequently in the Pretreatment Standard or by the Control Authority or the Approval Authority, a report indicating the nature and concentration of pollutants in effluent.*

The City's pretreatment program requirement for report submittal is more frequent than the federal requirement. Industrial users are to submit reports on a monthly, bimonthly, quarterly, semiannual, and annual basis. Because industrial users are required to monitor for pollutants during the month of December, reports are due in January. The City has established a report submittal due date of 15 days immediately following the end of the industrial user monitoring period. If the monitoring period ends in December, the City requires the industrial user to submit the report no later than the 15th day of the following month or by January 15th.

In accordance with 40 C.F.R. 403 Pretreatment Regulations, Section 403.8(f)(2)(vii)(F) states that an industrial user is in Significant Non-Compliance (SNC) if it fails to provide, within 30 days after the due date, required reports. The industrial user has until February 15th to submit the required report after the January 15th report due date, if monitoring occurred in December. If the industrial user has not submitted its required report by February 15th, then the Bureau will include the industrial user's name on the published SNC list.

Additionally, the City must ensure that all industrial user measurements obtained are in compliance with appropriate sampling techniques and procedures established in 40 C.F.R. Part 136. Verification of industrial user sampling results can range from 15 to 45 days (April 1st) after the SNC reporting period due date (February 15th). After industrial user sampling results have been verified, the SNC list is finalized. It will take approximately 30 days (April 30th) to prepare board reports, brief commissioners, and obtain Board of Public Works approval to publish the SNC list. After the Board of Public Works approves the SNC list, an additional 15 days (May 15th) is necessary to publish the SNC list in the largest newspaper.

It is the Bureau 's opinion that the published SNC list does not have to be included in the pretreatment annual report based on the above interpretation of EPA regulations, memorandums, and guidance documents. Furthermore, there is no definite deadline date established for publishing the SNC list. The Bureau believes that the SNC list publication schedule should allow for data verification and for the built-in flexibility necessary to publish a complete and accurate SNC list. Therefore, this requirement should be revised as shown in the Attachment 7.

The Bureau is also required to submit a Semi-Annual Pretreatment Program Compliance Report by August 15th of each year covering the periods of January 1st to June 30th. The Bureau requests that the due date of this report be changed to September 1st of each year to be consistent with the two months given for the preparation of the Annual Report.

The Bureau requests that a copy of the newspaper notice required under 40 C.F.R. §403.8(f)(2)(vii) be included in the Semi-Annual Report required under this NPDES Permit. Additionally, the Bureau requests that the due date for the January 1 to June 30 Semi-Annual Pretreatment Compliance Report be changed from August 15th to September 1st of each year.

Response: USEPA and Regional Board staff agree with the Bureau and appropriate changes have been made.

Modification: Section III.F. of final permit has been revised as follows:

F. The Discharger shall submit semiannual and annual reports to the Regional Board, and USEPA describing the Discharger's pretreatment activities over the period. The annual and semiannual reports shall contain, but not be limited to, the information required in the attached *Pretreatment Reporting Requirements* (Attachment P), or an approved revised version thereof. The Semi-Annual Report covers the periods from January 1 to June 30 and is due by September 1 of each year. A copy of the newspaper notice required under 40 CFR §403.8(f)(2)(vii) should be included in the Semi-Annual Report. A full scan of the priority pollutants for the influent and effluent should be conducted at least annually in July. If the Discharger is not in compliance with any conditions or requirements of this Order and permit, the Discharger shall include the reasons for noncompliance and shall state how and when the Discharger will comply with such conditions and requirements.

Supplemental Comments on Toxicity Limits and Monitoring (Attachment 6)
"Attachment 6" to the City's toxicity comments reiterated several issues that have been thoroughly answered in USEPA and Regional Board Responses 12 through 14. Consequently, Responses 12 -14 serve as our rebuttal to these comments. Attachment 6 also introduced five new issues to which we now respond.

27. Comment: *Sensitive species screening requirements are excessive and should be reduced.*

Response: USEPA and the Regional Board note that the 1996 EPA Regions 9 and 10 WET guidance document describes recommended 3-species screening procedures similar to those being requested by the City. Consequently, we have revised appropriate sections of the Monitoring and Reporting Program.

For acute toxicity testing, Section IV.E.1.b.(1) is replaced with the following:

Screening - The Discharger shall conduct the first acute toxicity test screening ~~every 24 months~~ for three consecutive months~~, with the first screening under this Monitoring Program to be conducted~~ in 2005 ~~2004~~. Re-screening is required every 24 months. The Discharger shall re-screen with a marine vertebrate species and a marine invertebrate species and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrate that the same species is the most sensitive, then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five, suites. ~~Re-screening shall be conducted at a different time of year from the previous screening. Screening tests shall be conducted using a marine vertebrate species and a marine invertebrate species.~~

For chronic toxicity testing, Section IV.E.2.b.(1) is replaced with the following:

Screening - The Discharger shall conduct the first chronic toxicity test screening ~~every 24 months~~ for three consecutive months~~, with the first screening under this Monitoring Program to be conducted~~ in 2005. Re-screening is required every 24 months. The Discharger shall re-screen with a marine vertebrate species, a marine invertebrate species, and a marine alga species and continue to monitor with the most sensitive species. If the first suite of re-screening tests demonstrate that the same species is the most sensitive, then the re-screening does not need to include more than one suite of tests. If a different species is the most sensitive or if there is ambiguity, then the Discharger shall proceed with suites of screening tests for a minimum of three, but not to exceed five, suites. ~~Re-screening shall be conducted at a different time of year from the previous screening. Screening tests shall be conducted using a vertebrate, an invertebrate, and a plant.~~

28. Comment: *The chronic toxicity limits carried over from the 1994 permit were miscalculated and should be changed in this permit.*

Response: CWA Section 402(o)(1) prohibits, subject to 303(d)(4) and/or 402(o)(2), the relaxation of effluent limits based on a State water quality standard. Because no applicable 402(o)(2) exception provides for relaxation and Section 303(d)(4) requirements have not been met, the chronic toxicity limits are not recalculated in the final permit.

29. Comment: *The East Coast chronic marine toxicity methods listed as tier 2 methods in the Ocean Plan should be incorporated into the final permit.*

Response: The final permit continues to list only the tier 1 West Coast chronic marine methods manual specified in the Ocean Plan. This is because selections of these species are available such that West Coast species may be tested year round. Moreover, these species are pertinent to Santa Monica Bay and continue to be preferred over East Coast species and methods.

30. Comment: *The permit should require the use of point estimates for analyzing toxicity test data.*

Response: EPA allows State regulatory agencies the choice of either hypothesis testing or point-estimation techniques for developing permit conditions and determining compliance. While several important drawbacks of the NOEC have been identified, hypothesis testing, per se, with safeguards is approved even by critics of NOECs (Fox and Denton, 2002). Such safeguards can include: A series of concentrations tested to verify and quantify a concentration-response relationship; power can be increased; the IWC can be closely bracketed by adjacent concentrations; an MSD can be applied as a test sensitivity criterion. Because the Ocean Plan specifies use of the NOEC for chronic toxicity and because a majority of the safeguards described above have been incorporated into the draft permit, the final permit is issued without change. EPA has recommended using point estimate procedures in NPDES testing even when NPDES self-monitoring data are required to be determined using hypothesis testing techniques. This permit is consistent with both EPA recommendations and State water quality standards in that it requires self-monitoring data to be reported using hypothesis testing techniques, while also requiring reporting of specified point estimates for calculating facility-specific CVs for toxicity.

31. Comment: *Detection or quantitation limits should be set if toxicity limits are maintained.*

Response: EPA has stated that method detection limit concepts are not applicable to WET test methods and have not been applied historically to toxicity testing methods developed by EPA or other scientific entities. EPA also believes that the test design employed in WET testing--including controls, replication, and hypothesis testing or point estimation--provides adequate protection from false positives. (See EPA's November 8, 2002 *Response to Comments on the Whole Effluent Toxicity Proposed Rule*, p. 293.) Detection limits are applicable only to tests that rely on instrumental measurements; they represent the sensitivity thresholds of the technology below which measurements become unreliable or impossible. Because WET testing is a biological and experimental method, rather than an instrumental method, detection limit concepts are not applicable. In Edison Electric Company, the petitioners challenging EPA's WET test methods had objected that EPA had not established detection limits for WET test methods. The Court of Appeals upheld the WET test methods and specifically discussed this issue, accepting EPA's explanation of why detection limits concepts are not applicable to WET testing and noting that the safeguards EPA included in the WET test methods addressed the petitioners' concerns. (Edison Electric Company at 1272-1273.)

Please note that additional responses to your itemized comments have been addressed in the Attachment 1. In addition, our responses to comments from County Sanitation Districts of Los Angeles County, Heal the Bay and Santa Monica Baykeeper are also enclosed as Attachments A and B, respectively. We believe that this letter has addressed your comments and suggestions.

Your revised Permit, Monitoring and Reporting Program, Fact Sheet, and attachments will be submitted under a separate cover letter. If you have any further questions, please contact Jau Ren Chen at (213) 576-6656 (Regional Board), or Robyn Stuber at (415) 972-3524 (USEPA).

Sincerely,

Jonathan S. Bishop
Executive Officer

Enclosures

cc: Environmental Protection Agency, Region IX, Clean Water Act Standards and Permits (WTR-5)
Los Angeles County Sanitation Districts
Heal The Bay
Santa Monica BayKeeper